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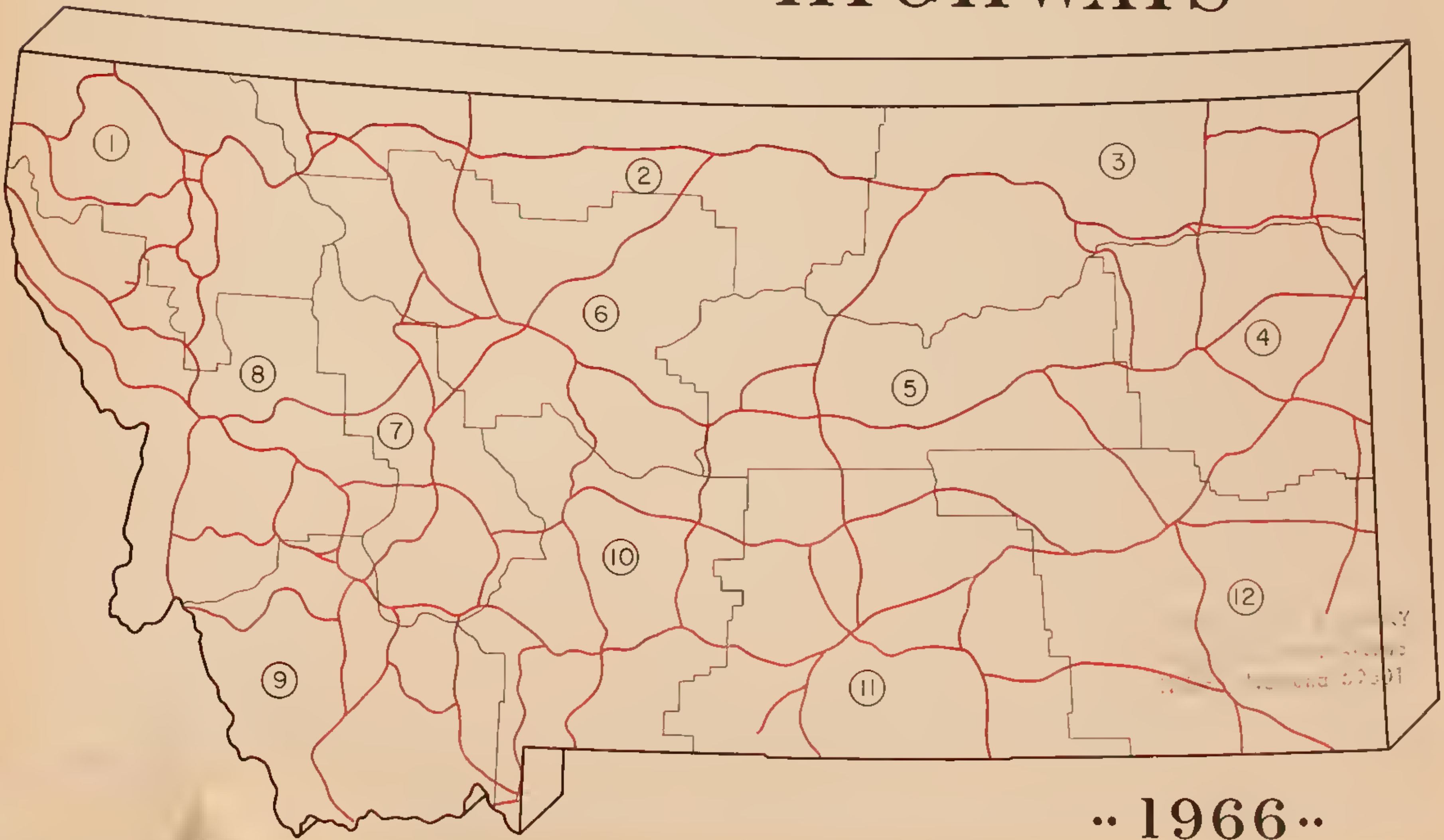
THE STATE OF MONTANA FUTURE NEEDS FOR PRIMARY HIGHWAYS



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FUTURE CONSTRUCTION AND IMPROVEMENT NEEDS

PRIMARY HIGHWAY SYSTEM IN MONTANA

Prepared By

PLANNING SURVEY SECTION
MONTANA STATE HIGHWAY COMMISSION

in Cooperation with

U.S. DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS

STATE HIGHWAY COMMISSION

Alex Blewett	Chairman
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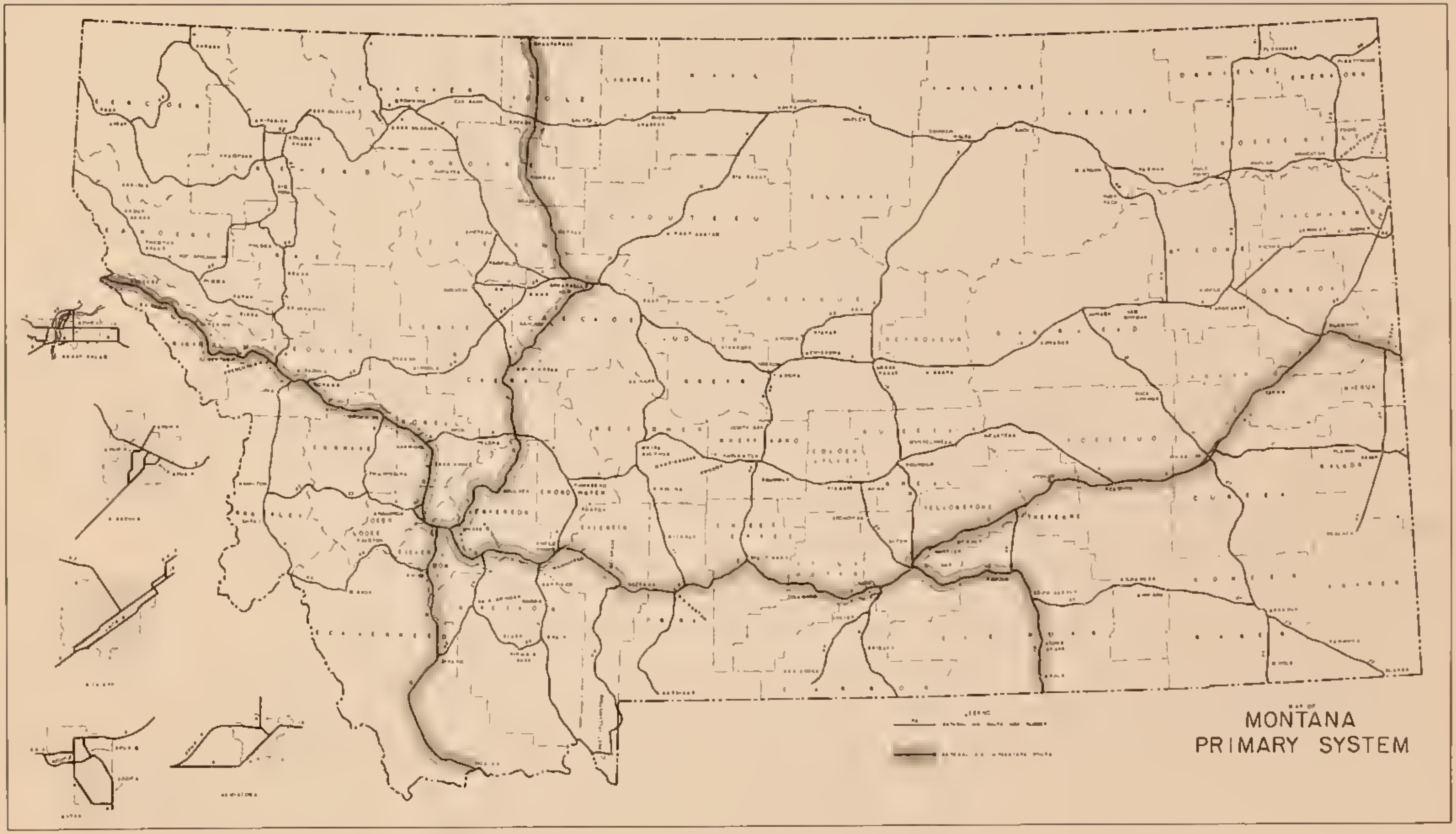
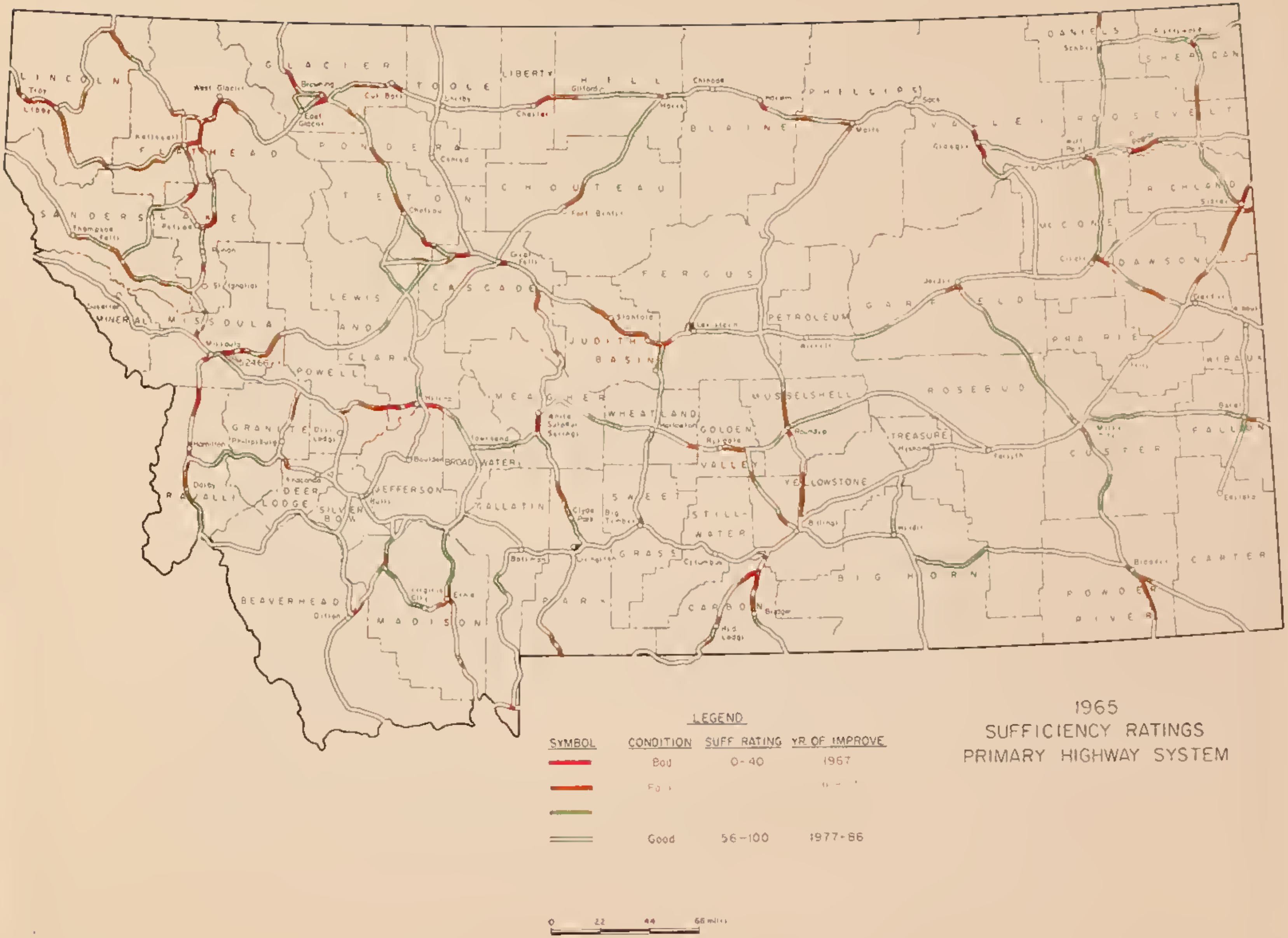


MAP OF

MONTANA
PRIMARY SYSTEM



LEGEND

SYMBOL	CONDITION	SUFF RATING	YR OF IMPROVE
🟥	Bad	0-40	1967
🟧	Fair		[illegible]
🟩			
═	Good	56-100	1977-86

1965
SUFFICIENCY RATINGS
PRIMARY HIGHWAY SYSTEM

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INTRODUCTION

This is an evaluation of one particular segment of Montana's future highway needs. It is, however, a most important segment considering our "highway official's" task of providing adequate service to the traveling public throughout the vast and bountiful State of Montana.

The subject of evaluation is the existing network of highways commonly known as the Primary System. Specifically, it is all streets and roads now designated as Federal Aid Primary routes excepting the sections that are eliminated by the Interstate System.

Studies and experience over the years reflect that Montana's Primary Highways have been well selected. They serve over 90 percent of the urban population and they reach all rural areas at reasonable intervals. They serve the major interstate and intrastate traffic movements not served by the new Interstate Routes.

The Primary Highway network consists of 4,674 miles of rural roads and 187 miles of urban streets. Approximately one-third of these miles are providing substantially less than adequate service according to a recent detailed review on the basis of sufficiency ratings. The situation is evidenced on the 1965 sufficiency rating map.

The purpose of this study is to establish the construction and improvement expenditures that are necessary to bring the existing primary mileage up to approved standards according to a section by section appraisal of adequacy and related estimates of cost.

GENERAL PROCEDURES

Sufficiency Ratings

All primary highway mileage, except coincident Interstate mileage, was appraised, section by section, to determine the present situation with respect to such elements as structural condition, curvature, grade, width, sight distance, traffic volume and

THE COMMON FAULTS OF HIGHWAYS WITH SUFFICIENCY RATINGS BELOW 51 PERCENT ARE: NARROW ROADWAYS, POOR DRAINAGE, POOR SURFACE CONDITIONS AND INSUFFICIENT SIGHT DISTANCES.

accident record. Point values assigned to these pertinent elements will add to a total of 100 points for sections that conform to standards of a highway which is judged to be adequate, efficient, and safe. In other words the sufficiency rating is a measure of the adequacy of a given section of highway compared to an accepted standard. It also reflects the priority of improvements needed.

Sections of highway that rate below 51 points are found to have numerous features which will only result in less than reasonably adequate service and these sections merit expedient improvement.

Sections rating less than 41 points must be considered totally inadequate and in grave need of replacement.

MODERN WELL DESIGNED HIGHWAYS SAVE LIVES. TIME, AND MONEY.

Standards

Design Standards are the engineering yardstick used to determine the kind and extent of improvement required for safe and economical travel under varying conditions of terrain and traffic service.

The design standards adopted for Primary Highways in Montana are based upon nationally accepted standards, developed by the American Association of State Highway Officials, the U. S. Bureau of Public Roads and neighboring state highway departments. Montana State Highway Commission Standard Sheet No. 31 portrays the standards used for the rural sections in this study.

Needed Improvements and Cost Estimating (Rural)

In determining the nature of the improvement to be estimated, maximum consideration was given to continuing use of existing facilities when they reasonably conform to present standards. The proposed improvements are either new construction or upgrading existing facilities.

New construction applies to sections meriting relocation, considerable improvement in location or substantial rebuilding on existing location. Cost estimates are based on average amounts per mile for various terrain classes, types of culture, types of soil, and scope of drainage. These amounts were established from analysis of actual cost of these basic features for the last five years. Classifications, types, etc. considered to apply to each section were determined by the district engineers according to field review of the routes in their district.

Upgrading existing facilities pertains to improvements needed to insure that reasonably adequate service is provided throughout the next 20 years for sections which do not require new construction. These improvements range from minor widening to extensive widening and from surface overlays to new base and surface. Costs are estimated on the basis of various percentages of the costs per mile established for new construction.

Cost estimates for structures were provided by the Bridge Division of the Montana State Highway Commission.

Costs were also included for such incidental items as traffic control, beautification, rest areas and at-grade railroad crossing protection.

All costs except utilities and rights-of-way were increased ten percent for engineering.

Maintenance and Administration needs were not evaluated in this study.

Urban Needs

Urban needs pertain to sections of primary highway within designated urban limits for all incorporated towns and cities. Ratings and proposed improvements for urban sections necessarily involve solutions particularily suited to each situation because the nature of city traffic is different and more variable than rural traffic. Adequate service on municipal streets is often provided through application of traffic engineering techniques such as signalization, removal of parking or restriction of parking rather than extensive new construction.

TRAFFIC SERVICE AT THIS BUSY JUNCTION WAS GREATLY IMPROVED BY ELIMINATION OF PARKING, RESURFACING, MEDIAN DIVIDER AND SPECIAL SIGNALIZATION.

Also grid-type street development in cities permits use of parallel streets as one-way couplets, thus avoiding expensive widening.

The principal improvements estimated for urban sections are paving, draining, and curb and gutters.

Costs for urban improvements are estimated on the basis of square yard for base and paving, lineal foot for curb and gutter, and lineal foot or lump sum for storm sewer. The unit costs used are averages of actual costs for such work during the last five years.

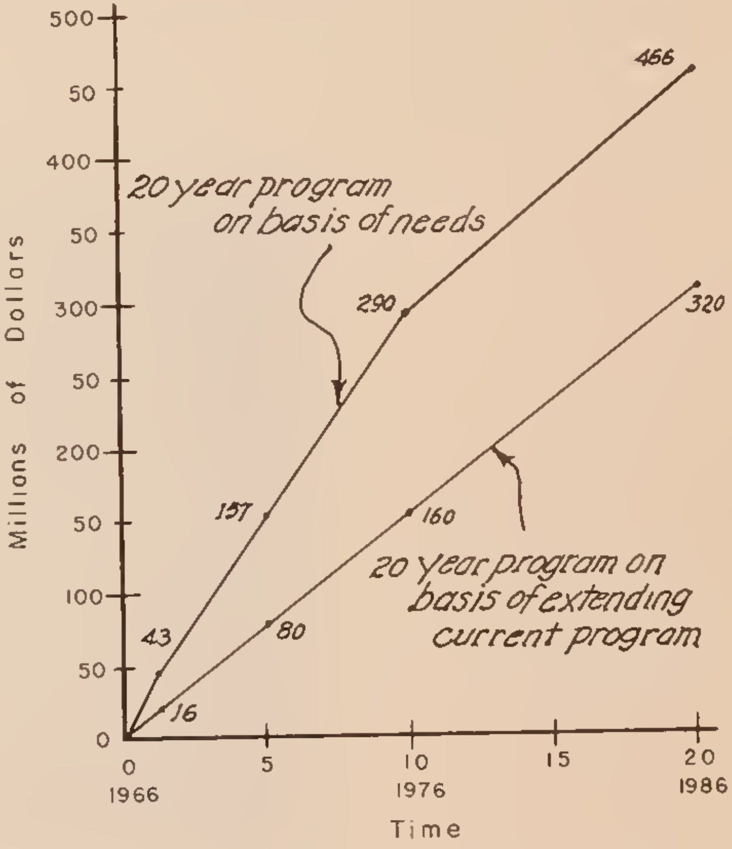
FUTURE NEEDS IN REVIEW

The estimated total cost of improvements needed on the Primary Highway System during the next 20 years is 466 million dollars.

Forty-three million dollars are needed now to remedy existing intolerable conditions. If this need was eliminated in one year (1967) then, one hundred fourteen million dollars will be needed in the four year period (1968-1971) for improvement of sections that are only slightly better than the intolerable sections. One-hundred thirty-three million dollars are needed in the second five year period (1972-1976) for sections now providing only fair service. One-hundred seventy-six million dollars are needed for the 10 year period (1977-1986) to improve sections that will provide adequate service for the next 10 to 20 years.

The pertinent results of the study are contained in the summary tabulations and the route map section-by-section estimates presented at the close of this review.

It is noteworthy that the amount needed over the next 20 years is 50 percent greater than would be provided by continuing the current annual program of approximately 16 million dollars for construction on the primary



PRIMARY SYSTEM NEEDS AS COMPARED TO EXTENDING CURRENT PRIMARY HIGHWAY PROGRAM.

system during that same period of time.

There is a large variation in the annual needs for Financial Districts 1, 7, and 8. Furthermore, over 60 percent of the needs for the first five year period are located in this mountainous western region of the State.

It should also be observed that 56 percent of the urban needs are for inadequate sections meriting attention within the first five year time period.

All of the pertinent and interesting features which might be established through various analyses of the data associated with this study would be impractical to attempt to present in this report. However, the factual data developed in this study should provide a valuable foundation upon which to base future considerations concerning finance, fund distribution, and construction programs, so that the benefits of a modern Primary Highway System can be provided at the earliest possible date.

THE ECONOMIC GROWTH OF MONTANA WILL BE BENEFITED BY IMPROVED HIGHWAYS WHICH WILL MOVE PEOPLE AND GOODS WITH SPEED, SAFETY, AND CONVENIENCE.

NEEDS BY ROUTES
(in thousands of dollars)

TABLE I
Sheet 1 of 3 Sheets

RURAL							URBAN						RURAL & URBAN	
ROUTE	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
1	658.2	$ 52,646	$ 6,673	$ 2,157	$ 881	$ 62,357	20.2	$ 2,642	$ 132	$ 529	$ 86	$ 3,389	678.4	$ 65,746
2	219.2	10,662	2,140	566	186	13,554	32.6	2,278	908	501	375	4,062	251.8	17,616
3	172.8	15,724	1,173	662	163	17,722	21.2	2,654	2,500	769	236	6,159	194.0	23,881
4	53.2	4,741	903	390	209	6,243	.9	177		24	10	211	54.1	6,454
5	178.1	13,661	371	849	241	15,122	8.7	438		179	56	673	186.8	15,795
6	114.5	15,486	1,898	1,027	488	18,899	1.7	174		25	8	207	116.2	19,106
7	87.9	9,118	1,555	871	360	11,904	7.2	1,239	200	605	395	2,439	95.1	14,343
8	100.1	13,315	1,087	589	105	15,096	8.2	269	75	95	70	453	108.3	15,549
9	64.0	4,611	535	211	41	5,398	.7	135		35	13	180	64.7	5,578
10	106.8	7,435	1,322	251	132	9,140	4.2	513	300	331	157	1,301	111.0	10,441
11	205.0	15,139	1,148	564	145	16,996	12.6	1,183		280	70	1,533	217.6	18,529
12	9.8	317		28	10	355							9.8	355
13	83.3	6,851	688	271	45	7,855	.7	107		10	13	127	84.0	7,982
14	252.8	23,349	1,025	1,138	191	25,703	6.4	259		95	22	331	259.2	26,034
15	319.1	27,548	3,323	942	182	31,995	6.3	225		32	13	270	325.4	32,265
16	199.3	11,673	1,017	399	183	13,272	2.6	395	2,000	45	60	2,500	201.9	15,772
17	8.3						.4						8.7	
18	82.2	4,576	285	183	30	5,074	1.0						83.2	5,074
19	58.2	5,635	177	645	118	6,575	5.2	133		100	30	263	63.4	6,838
20	59.9	4,566	109	379	34	5,088	4.2	361		33	14	408	64.1	5,496

NEEDS BY ROUTES
(in thousands of dollars)

TABLE I
Sheet 2 of 3 Sheets

RURAL							URBAN						RURAL & URBAN	
ROUTE	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
		$	$	$	$	$		$	$	$	$	$		$
21	9.6	135		4	4	143	.7	51	200	14	10	275	10.3	418
22	121.3	11,551	1,130	360	287	13,328	4.5	213		16	15	244	125.8	13,572
23	137.3	10,877	330	381	159	11,747	1.6	195		12	34	241	138.9	11,988
24	160.8	15,666	1,477	662	167	17,972							160.8	17,972
25	52.2	6,126	1,410	192	342	8,070	.6	80	900	14	4	998	52.8	9,068
26	7.5	733		29	16	778							7.5	778
27	77.5	5,168	79	116	150	5,513	2.5	272		51	16	339	80.0	5,852
28	39.1	4,464	190	399	89	5,142	2.6	296		47	16	359	41.7	5,501
29	61.8	6,099	443	313	54	6,909	3.9	157		2	11	176	65.7	7,085
30	23.4	2,208		80	62	2,350	.8	183		10	5	198	24.2	2,548
32	64.9	5,916	510	221	344	6,991	.9	54				54	65.8	7,045
33	63.5	740		23	4	767	.7	76		10	5	91	64.2	858
35	54.4	4,044	170	72	11	4,297							54.4	4,297
36	48.4	4,898	55	170	44	5,167	.7	7		2	2	11	48.6	5,178
37	103.7	10,077	486	253	74	10,890							103.7	10,890
38	8.2	1,023	495	226	57	1,801	1.0	231		75	30	336	9.2	2,137
40							2.0	520		140	20	680	2.0	680
41							1.6	425	650	161	46	1,282	6.5	1,282
42	75.4	4,877	365	109	53	5,404	.7	94	450	32	15	591	76.1	5,995
43	42.1	2,242	48	74	24	2,388	.6	46		12	14	72	42.7	2,460

NEEDS BY ROUTES

(in thousands of dollars)

TABLE I

Sheet 3 of 4 Sheets

RURAL							URBAN						RURAL & URBAN	
ROUTE	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
45	81.9	$ 7,197	$ 1,175	$ 276	$ 64	$ 8,712	1.2	$ 124	$	$ 45	$ 12	$ 181	83.1	$ 8,893
46	76.0	1,256	316	19	7	1,598							76.0	1,598
47	6.0	584		12	6	602							6.0	602
48	29.0	1,963	61	143	58	2,225	.7	100		35	10	145	29.7	2,370
49	26.9	1,460	52	93	10	1,615	.7	15		10	3	28	27.6	1,643
50	86.2	2,670	267	176	44	3,157	2.5	156				156	88.7	3,313
51	70.7	1,655				1,655	.3	5				5	71.0	1,660
52	45.5	7,242	276	1,554	130	9,202							45.5	9,202
53	38.2	4,179	59	131	14	4,383	7.5	515	450	311	160	1,436	45.7	5,819
54	29.4	2,194		41	9	2,244							29.4	2,244
TOTALS	4673.6	$ 374,297	$ 34,823	$ 18,251	$ 6,027	$ 433,398	187.7	$ 16,997	$ 8,765	$ 4,648	$ 1,994	$ 32,404	4861.3	$ 465,802

NEEDS BY FINANCIAL DISTRICT
(in thousands of dollars)

TABLE II
Sheet 1

	RURAL						URBAN						RURAL & URBAN	
FIN DIST	MILES	ROADWAY	STRUCTURES	R.O.W.	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	R.O.W.	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
1	489.3	$ 46,528	$ 4,466	$ 3,593	$ 594	$ 55,181	17.4	$ 1,374	$ 93	$ 400	$ 116	$ 1,983	506.7	$ 57,164
2	347.1	28,697	1,785	1,208	622	32,312	7.3	1,559	239	254	42	2,094	354.4	34,406
3	484.5	31,329	5,277	1,076	938	38,620	14.3	1,179	1,350	241	66	2,836	498.8	41,456
4	371.5	24,794	1,328	857	465	27,444	9.1	565		54	26	645	380.6	28,089
5	351.6	24,974	2,623	918	198	28,713	4.2	222		37	25	284	355.8	28,997
6	362.4	31,038	3,960	1,174	418	36,590	32.0	4,307	3,050	1,474	439	9,270	394.4	45,860
7	249.0	22,323	2,288	846	172	25,629	17.8	996	475	275	81	1,827	266.8	27,456
8	449.4	49,688	4,549	3,117	1,180	58,534	16.6	1,876	380	792	453	3,501	463.4	62,035
9	287.7	17,446	1,346	1,003	153	19,948	17.2	1,319	100	307	107	1,833	304.9	21,781
10	427.4	24,495	3,219	1,267	238	29,219	16.6	927		211	78	1,216	444.0	30,435
11	371.2	35,405	2,531	2,050	568	40,554	26.8	1,648	2,450	512	278	4,888	398.0	45,442
12	482.5	37,580	1,451	1,142	481	40,654	11.0	1,025	628	91	283	2,027	493.5	42,681
TOTALS	4673.6	$ 374,297	$ 34,823	$ 18,251	$ 6,027	$ 433,398	187.7	$ 16,997	$ 8,765	$ 4,648	$ 1,994	$ 32,404	4861.3	$ 465,802

NEEDS BY PRIORITY TIME PERIODS ACCORDING TO FINANCIAL DISTRICTS TABLE III

in thousands of dollars

Sheet 1 of 4 Sheets

	RURAL						URBAN						RURAL & URBAN	
PERIOD	MILES	ROADWAY	STRUCTURES	ROW.	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	R.O.W.	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
NOW	73.6	$ 9,235	$ 1,069	$ 1,135	$ 221	$ 11,660	1.2	$ 291	$	$ 85	$ 35	$ 411	74.8	$ 12,071
1-5	125.6	17,980	1,661	1,578	197	21,416	.7	76		10	5	91	126.3	21,507
6-10	57.5	8,465	162	525	74	9,226	2.0	569	93	126	20	808	59.5	10,034
11-20	232.6	10,848	1,574	355	102	12,879	13.5	438		179	56	673	246.1	13,552
FINANCIAL DISTRICT NO 1														
NOW	7.2	746	259	43		1,048							7.2	1,048
1-5	69.1	9,981	344	311	66	10,702	1.9	245	200	60	18	523	71.0	11,225
6-10	90.2	9,215	291	343	206	10,055	1.0	210		20	4	234	91.2	10,289
11-20	180.6	8,755	891	511	350	10,507	4.4	1,104	39	174	20	1,337	185.0	11,844
FINANCIAL DISTRICT NO 2														
NOW	13.3	1,523	222	133	47	1,925	.4	72			2	74	13.7	1,999
1-5	45.5	5,037	1,559	191	203	6,990	2.3	395		127	30	552	47.8	7,542
6-10	97.7	10,464	1,280	388	335	12,467	1.2	255	900	24	9	1,188	98.9	13,655
11-20	328.0	14,305	2,216	364	353	17,238	10.4	457	450	90	25	1,022	338.4	18,260
FINANCIAL DISTRICT NO 3														

NEEDS BY PRIORITY TIME PERIODS ACCORDING TO FINANCIAL DISTRICTS TABLE III
in thousands of dollars Sheet 2 of 4 Sheets

	RURAL						URBAN						RURAL & URBAN	
PERIOD	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	R.O.W	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
NOW	14.1	$ 1,888	$ 70	$ 127	$ 39	$ 2,124	.2	$ 57	$	$ 5	$ 2	$ 64	14.3	$ 2,188
1-5	33.9	3,864	134	314	44	4,356	.9	156		27	12	195	34.8	4,551
6-10	76.5	9,142	625	281	365	10,413	1.4	135		7	2	144	77.9	10,557
11-20	247.0	9,900	499	135	17	10,551	1.6	217		15	10	242	253.6	10,793
FINANCIAL DISTRICT NO 4														
NOW	3.7	439	43	32	11	525							3.7	525
1-5	5.6	571	295	22	1	889							5.6	889
6-10	68.1	7,666	425	273	67	8,431							68.1	8,431
11-20	274.2	16,298	1,860	591	119	18,868	4.2	222		37	25	284	278.4	19,152
FINANCIAL DISTRICT NO 5														
NOW	11.6	1,616	192	148	57	2,013	2.9	681		158	26	865	14.5	2,878
1-5	103.9	11,970	2,018	460	146	14,594	15.9	2,520	3,050	979	318	6,867	119.8	21,461
6-10	103.4	9,784	941	364	135	11,224	2.7	403		75	40	518	106.1	11,742
11-20	143.5	7,668	809	202	80	8,759	10.5	703		262	55	1,020	154.0	9,779
FINANCIAL DISTRICT NO 6														

NEEDS BY PRIORITY TIME PERIODS ACCORDING TO FINANCIAL DISTRICTS

in thousands of dollars

TABLE III

Sheet 3 of 4 Sheets

RURAL							URBAN						RURAL & URBAN	
PERIOD	MILES	ROADWAY	STRUCTURES	ROW.	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
NOW	13.0	$ 4,750	$ 514	$ 153	$ 35	$ 5,452	2.1	$ 207	$	$ 45	$ 15	$ 267	15.1	$ 5,719
1-5	5.4	597		47	7	651	2.9	268	375	160	42	845	8.3	1,496
6-10	59.5	6,918	169	302	50	7,439	4.2	431	100	50	13	594	63.7	8,033
11-20	171.1	10,058	1,605	344	80	12,087	8.6	90		20	11	121	179.7	12,208
FINANCIAL DISTRICT NO 7														
NOW	30.2	5,562	418	604	160	6,744	4.1	1,081	180	610	348	2,219	34.3	8,963
1-5	105.2	14,187	2,854	1,024	509	18,574	2.5	281	200	107	62	650	107.7	19,224
6-10	116.8	16,306	682	722	242	17,952	1.3	138		30	25	193	118.1	18,145
11-20	197.2	13,633	595	767	269	15,264	6.1	376		45	18	439	203.3	15,703
FINANCIAL DISTRICT NO 8														
NOW	4.5	489	239	45	8	781	1.4	258			15	273	5.9	1,054
1-5	25.6	2,500	296	156	23	2,975	4.6	620	100	183	39	942	30.2	3,917
6-10	72.3	6,829	477	344	60	7,710	1.4	122		20	13	155	73.7	7,865
11-20	185.3	7,628	334	458	62	8,482	9.8	319		104	40	463	195.1	8,945
FINANCIAL DISTRICT NO 9														

NEEDS BY PRIORITY TIME PERIODS ACCORDING TO FINANCIAL DISTRICTS

in thousands of dollars

TABLE III

Sheet 4 of 4 Sheets

	RURAL						URBAN						RURAL & URBAN	
PERIOD	MILES	ROADWAY	STRUCTURES	ROW.	UTILITIES	TOTAL RURAL	MILES	ROADWAY	STRUCTURES	ROW	UTILITIES	TOTAL URBAN	TOTAL MILES	TOTAL AMOUNT
NOW	12.2	$ 1,353	$ 540	$ 74	$ 38	$ 2,005	.7	$ 127	$	$ 70	$ 30	$ 227	12.9	$ 2,232
1-5	29.4	2,764	761	115	20	3,660	.5	62		19	5	86	29.9	3,746
6-10	60.3	5,332	512	295	38	6,177	.6	60		46	12	87	60.9	6,264
11-20	325.5	15,046	1,406	783	142	17,377	14.8	678		107	31	816	340.3	18,193
FINANCIAL DISTRICT NO 10														
NOW	17.3	2,313	882	252	106	3,553							17.3	3,553
1-5	89.0	11,077	543	478	122	12,220	4.2	753	450	362	176	1,741	93.2	13,961
6-10	98.7	11,363	806	737	173	13,079	3.8	521	2,000	87	75	2,683	102.5	15,762
11-20	166.2	10,652	300	583	167	11,702	18.8	374		63	27	464	185.0	12,166
FINANCIAL DISTRICT NO 11														
NOW	10.8	725				725							10.8	725
1-5	29.8	2,928	105	112	38	3,183	4.4	554	628	46	264	1,492	34.2	4,675
6-10	91.5	10,539	520	422	165	11,646	1.5	793		44	18	261	93.0	11,907
11-20	350.4	23,388	826	608	278	25,100	5.1	272		1	1	274	355.5	25,374
FINANCIAL DISTRICT NO 12														

SUMMARY OF FINANCIAL DISTRICT NEEDS BY TIME PERIODS

(In thousands of dollars)

TABLE IV RURAL & URBAN COMBINED

Fin. Dist.	Now	1-5 yrs	6-10 yrs	11-20 yrs
1	$12,071	$ 21,507	$ 10,034	$ 13,552
2	1,048	11,225	10,289	11,844
3	1,999	7,542	13,655	18,260
4	2,188	4,551	10,557	10,793
5	525	889	8,431	19,152
6	2,878	21,461	11,742	9,779
7	5,719	1,496	8,033	12,208
8	8,963	19,224	18,145	15,703
9	1,054	3,917	7,865	8,945
10	2,232	3,746	6,264	18,193
11	3,553	13,961	15,762	12,166
12	725	4,675	11,907	25,374
TOTALS	$42,955	$114,194	$132,684	$175,969

TABLE V URBAN ONLY

Fin.Dist.	Now	1-5 yrs	6-10 yrs	11-20 yrs
1	$ 411	$ 91	$ 808	$ 673
2		523	234	1,337
3	74	552	1,188	1,022
4	64	195	144	242
5				284
6	865	6,867	518	1,020
7	267	845	594	121
8	2,219	650	193	439
9	273	942	155	463
10	227	86	87	816
11		1,741	2,683	464
12		1,492	261	274
TOTALS	$4,400	$13,984	$6,865	$7,155

NEEDS BY ROUTE ACCORDING TO CONDITION
(in thousands of dollar)

TABLE VI
Sheet 1 of 3 Sheets

	RURAL								URBAN							
	BAD		POOR		FAIR		GOOD		BAD		POOR		FAIR		GOOD	
ROUTE	MILES	AMT.	MILES	AMT	MILES	AMT.	MILES	AMT.	MILES	AMT.	MILES	AMT.	MILES	AMT	MILES	AMT.
1	51.8	$ 8,342	130.3	$ 18,861	103.8	$ 13,177	372.3	$ 21,977	.6	$ 149	2.0	$ 584	3.0	$ 1,042	14.6	$ 1,614
2	2.6	785	5.2	832	52.0	5,916	159.4	6,021	3.1	1,234	6.1	1,992	.2	30	23.2	806
3	11.4	1,785	56.1	8,172	54.9	6,576	50.4	1,189	2.6	446	9.1	4,636	6.3	961	3.2	116
4	9.2	2,164	7.9	1,207	5.6	987	30.5	1,885					.5	139	.4	72
5	20.0	2,922	33.4	5,473	15.5	2,126	109.2	4,601							8.7	673
6	2.7	512	35.2	6,875	22.5	4,004	54.1	7,508					.6	37	1.1	170
7	13.1	2,388	18.8	3,128	25.0	5,265	31.0	1,123	2.5	1,375	2.3	639	.7	156	1.7	269
8	17.2	7,335	21.4	2,878	7.3	1,005	54.2	3,878	1.0	116	1.2	275			6.0	62
9					21.7	2,504	42.3	2,894							.7	180
10			15.6	3,075	52.0	5,369	39.2	696			3.3	1,150	.6	151	.3	
11	9.3	1,333	32.4	3,876	32.9	3,071	130.4	8,716			5.0	828	.5	71	7.1	634
12	1.4	178					8.4	177								
13	1.5	406	9.7	978	37.5	3,687	34.6	2,784					.7	127		
14	1.0	151	15.6	2,443	69.0	9,723	167.2	13,386			.4	79			6.0	252
15	2.6	310	41.9	5,785	43.0	5,549	231.6	20,351			.5	58			5.8	212
16	1.8	560	39.8	5,133	7.1	810	150.6	6,769					1.3	2,266	1.3	234
17							8.3								.4	
18					39.4	4,426	42.8	648							1.0	
19			14.2	1,930	6.5	1,435	37.5	3,210							5.2	263
20	11.4	1,753	21.0	2,821			27.5	514	.2	64	.6	153	1.2	136	2.2	55

NEEDS BY ROUTE ACCORDING TO CONDITION
(in thousands of dollar)

TABLE VI
Sheet 2 of 3 Sheets

	RURAL								URBAN							
	BAD		POOR		FAIR		GOOD		BAD		POOR		FAIR		GOOD	
ROUTE	MILES	AMT.	MILES	AMT	MILES	AMT.	MILES	AMT.	MILES	AMT.	MILES	AMT.	MILES	AMT	MILES	AMT.
21		$	1.1	$ 128		$	8.5	$ 15		$	.7	$ 275		$		$
22	.9	171	22.7	3,223	44.8	6,087	52.9	3,847			.8	114			3.7	130
23	10.8	725	4.2	564	32.4	4,012	89.9	6,446			1.1	197	.5	44		
24	6.2	1,325	20.0	4,532	33.9	4,000	100.7	8,115								
25	2.7	371	7.7	1,946	41.8	5,753							.6	998		
26			6.7	669	.8	109										
27					5.5	680	72.0	4,833					.8	187	1.7	152
28	5.3	678	10.6	1,382	4.5	602	18.7	2,480			2.6	359				
29			12.1	1,467	21.9	2,454	27.8	2,988			.2	21			3.7	155
30					12.9	1,287	10.5	1,063					.8	198		
32			7.4	720	30.4	3,833	27.1	2,438							.9	54
33			3.7	441			59.8	326			.7	91				
35					32.7	3,733	21.7	564								
36			1.7	182	23.8	3,295	22.9	1,690			.2	11				
37					38.7	5,022	65.0	5,868								
38	1.9	513	6.3	1,288					1.0	336						
40									2.0	680						
41											2.3	1,133			4.2	149
42	2.2	311			14.0	2,099	59.2	2,994							.7	591
43	1.1	215					41.0	2,173							.6	72

NEEDS BY ROUTE ACCORDING TO CONDITION

(in thousands of dollar)

TABLE VI
Sheet 3 of 3 Sheets

	RURAL								URBAN							
	BAD		POOR		FAIR		GOOD		BAD		POOR		FAIR		GOOD	
ROUTE	MILES	AMT.	MILES	AMT	MILES	AMT.	MILES	AMT.	MILES	AMT	MILES	AMT.	MILES	AMT	MILES	AMT
45		$	8.6	$ 1,348	24.0	$ 3,072	49.3	$ 4,292		$	.5	$ 86	.1	$ 16	.6	$ 79
46					2.8	540	73.2	1,058								
47							6.0	602								
48					6.1	788	22.9	1,437					.7	145		
49	3.0	375	3.8	530	3.4	91	16.7	619					.7	28		
50					9.1	331	77.1	2,826							2.5	156
51							70.7	1,655							.3	5
52	20.4	2,947	17.4	4,481	7.7	1,774										
53			15.1	2,055	5.6	627	17.5	1,701			1.2	1,303	1.3	133	5.0	
54			20.4	1,787			9.0	457								
TOTALS	211.5	$ 38,555	668.0	$ 100,210	992.5	$ 125,819	2801.6	$ 168,814	13.0	$ 4,400	40.8	$ 13,984	21.1	$ 6,865	112.8	$ 7,155

Drawn Nov. 1, 1966	Last Revision	STANDARD SHEET NO. 31
State Highway Commission Helena, Montana	PRIMARY & SECONDARY DESIGN STANDARDS	Approved State Highway Engineer

MINIMUM VERTICAL CURVE LENGTHS*

Terrain		Level	Rolling	Mountain
Design Speed		70 mph	60 mph	50 mph
STOPPING SIGHT DISTANCE	Stopping Distance, ft. Crest Vertical Curve Sag Vertical Curve	600 2.55 1.45	475 1.60 1.05	350 0.85 0.75
PASSING SIGHT DISTANCE	Passing Distance, ft. Crest Vertical Curve	2300 16.10	2000 12.10	1700 8.70

*Values given are coefficient by which the algebraic difference in grade may be multiplied to determine the length in sta's of the vert. curve which will provide minimum sight distance. Special design where higher standards are NOT feasible. Subject to prior app. of headquarters.

MAXIMUM GRADES & HORIZONTAL CURVES

	Level Terrain Design Speed 70 mph	Rolling Terrain Design Speed 60 mph	Mountain Terrain Design Speed 50 mph	Special Design ⊗
Maximum Grade Max. Horiz. Curve	3% 3°30'	5% 5°00'	6% 7°30'	7% 12°30'

⊗Special design where higher stds. are not feasible. Subject to prior approval of headquarters.

ROAD WIDTHS

Future ADT * 20 yr.	PRIMARY & SECONDARY MINIMUM WIDTHS		
	Mountainous 50 mph	Rolling 60 mph	Level 70 mph
0-50	26	26	26
50-250	28	28	28
250-400	28	30	30
400-750	34	34	36
750-2800	40	40	40
Over 2800	44	44	44

Primary & Secondary Roads with future traffic volumes of 100 ADT or more to be Bit. Surf. Low volume roads are considered to be those having less than 100 ADT future traffic counts.

*In some cases, traffic volume may be given as design hourly volume (DHV) in such cases DHV X 7 = ADT

NOTE: Refer to Std. Sht. #20 for super elevations and curve widening.

See Std. Sht. #30 or #32 for Interstate standards.

CONTINUING NEEDS STUDY
FEDERAL AID PRIMARY SYSTEM
PLANNING SURVEY SECTION
MONTANA HIGHWAY COMMISSION

SECTION TABULATION
WORK SHEET

Date July 1966

IDENTIFICATION

1. Route No. 01 2. Control Section No. 032.3 3. Study Section No 032.5

4 Financial District 01 5 County No. 27 6. Rural 1 Urban 2 ☐1

7. Section Terminus 29.1 M. E FAS 482

8. Section Length 06.8 miles

EXISTING CONDITIONS

9. Terrain 3 1. Flat 2. Rolling 3. Mountainous 10. Road or Street Width 028 Ft. *(Median to be Included)*

11. No of Lanes 2

12. Surface 1 1 Bituminous 2 Concrete 3 Gravel

13 Structures Suitable Without Improvement (No. of Each)

A. Stream Bridges 0 B R.R Separations 0

14. 1964 A D.T 0700 15 Practical Capacity 3100 Vehicles Daily

16. Year Capacity Exceeded 19— — (Only enter when less than 11 years hence)

17 Sufficiency Rating 51 Total Combined Points

18 Time Improvement is Needed 3 1. Now 2. 1 to 5 years 3. 6 to 10 years 4. After 10 years

PROPOSED IMPROVEMENT

19 Kind of Work 1 New Construction ☑ 2. Reconstruction ☐ 3. Resurface ☐ 4 Special ☐

20. Type of Surface 1 1. Plant Mix Bitm. 2. Concrete 3. Gravel

21. New Structures -(No of Each) A. Stream Bridges 1 B R.R. Separations 0

C. Highway Separations 0

22 Design A.D.T. 20 year 1400

23. Design Width of Road or Street 040 24 No of Lanes 2 *(Median to be included)*

ESTIMATED COST OF IMPROVEMENT

25. Right of Way	$ 27	thousands
26. Utilities	$ 7	thousands
27 Roadway (Clearing, Grading, Drainage)	$ 693	thousands
28 Base and Surface	$ 374	thousands
29. Structures	$ 24	thousands
30. At Grade R R Crossings	$ 0	thousands
31 Other and Misc	$ 37	thousands
32. Total Cost of Section	$ 1162	thousands

Note: 10% for Eng'r and Contingencies is included.

CONTINUING NEEDS STUDY
FEDERAL AID PRIMARY SYSTEM
PLANNING SURVEY SECTION
MONTANA HIGHWAY COMMISSION

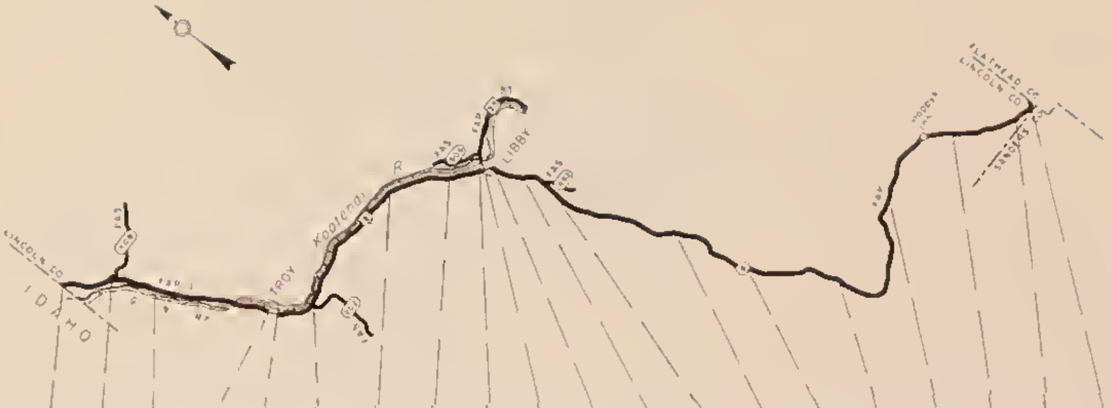
Date July 1966

ESTIMATE WORK SHEET FOR HIGHWAY COST

1 Route No. 01 2. Control Section No. 032.3 3. Study Section No. 032.5
4. Financial District 01 5. County 27
6. Section Terminus 29.1 M. E FAS 482
7. Section Length 6.8 miles 8. Design Width of Road 40 ft.

ITEM	CLASSIFICATION	PER MILE COST	MILES	COST EST.	TOTAL (thousands)
1 Right of Way	1. Grazing Land	4 000	6.8	27200	
	2. Dry Cultivated	3 000			
	3 Irrigated	12 000			
	4 Light Commercial	20 000			
	5. Residential	50 000			
	6. Other				27
2 Utilities	1. Misc Adj Power & Tel	1000	6.8	6800	
	2				
	3. Engr and Cont. (+ 10% of Item)				7
3 Clearing	1. Light	5 000			
	2 Moderate	10 000	6.8	68000	
	3. Heavy	15 000			
	4 Engr. and Cont. (+ 10% of Item)				68
4. Grading	1. Flat	15 000			
	2. Rolling	25 000			
	3. Mountainous	100 000			
	4. Other Medium	60 000	6.8	408000	
	5. Eng'r and Cont (+ 10% of Item)			40800	
	Total Item by Width Factor	448 X1.25			560
5. Drainage	1. Light to Moderate	7 000	6.8	47 600	
	2. Moderate to Heavy	15 000			
	3. Other				
	4. Engr and Cont (+ 10% of Item)			4 760	
	Total Item by Width Factor	52 X1.25			65
6. Base	1. Poor to Fair Soil	32 000			
	2. A.D.T. Less than 1500	24 000			
	3. Fair to Good Soil	20 000			
	4. ADT. Less than 1500	15 000	6.8	102000	
	5. Eng'r and Cont (+ 10% of Item)			10200	
	Total Item by Width Factor	112 X1.25			140
7. Surfacing	1. Plant Mix Bituminous	25 000	6.8	170 000	
	2 Other				
	3. Eng'r. and Cont (+ 10% of Item)			17000	
	Total Item by Width Factor	187 X1.25			234
8. Miscellaneous	Total of Items 3 thru 7 by 2.5%	1067		x .025 =	27
9 Other	1. Traffic Control	500	6.8	3400	10
	2. Beautification	1000	6.8	6800	
	3. Special				
	4. Eng'r and Cont (+ 10% of Item)				

ROUTE MAPS
NEEDS ESTIMATE DATA
BY SECTIONS



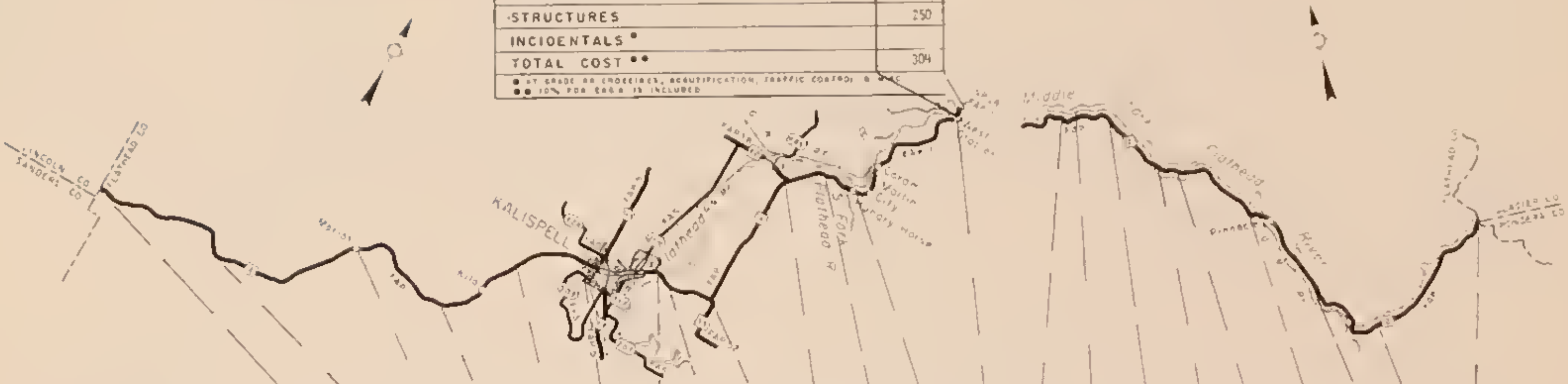
ACCUM. ROUTE MILEAGE	0.0	3.8	7.0	14.0	15.3	16.9	25.4	29.8	32.1	32.3	33.0	34.3	35.7	44.2	49.2	56.1	64.8	71.6	78.2
LENGTH (MILES)	3.8	3.2	7.0	1.3	2.4	8.5	4.4	2.3	0.2	0.7	1.3	1.4	8.5	5.0	6.9	8.7	6.8	6.6	2.1
FINANCIAL DIST.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	FU	FR	FR	FR	FR	FU	U	R	R	R	FR	FR	FR	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	30	30	30	32	24	24	24	24	36	36	30	30	24	24	24	26	28	26	26
SUFFICENCY RATING	71	53	55	75	28	41	39	38	57	80	42	42	45	49	47	57	51	47	65
DESIGN ADT 20 YEAR	1600	1600	1800	4000	2800	2700	2700	2800	9000	9000	5000	3200	1600	1600	1600	1600	1400	1400	1400
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-44	2-44	2-40	2-40	2-44	4-88	4-88	4-88	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	72-76	1967	68-71	1967	1967	1967	72-76	68-71	68-71	68-71	68-71	68-71	72-76	72-76	68-71	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																			
RIGHT OF WAY	15	13	29	56	10	26	18	76	10	70	65	6	34	20	28	35	27	26	8
UTILITIES	2	1	7	10	2	9	4	5	5	10	10	1	8	10	7	9	7	7	2
GRADE & DRAINAGE	335	237	342	34	123	458	215	190	25	200	194	72	415	270	368	480	693	354	219
BASE & SURFACE	296	250	547	129	159	523	271	223	34	119	168	91	523	391	538	682	374	443	140
STRUCTURES		174	775	93	87			146				89	24	86		89	24		
INCIDENTALS *	71	17	72	25	9	76	18	14	1	12	10	6	16	24	32	92	37	30	11
TOTAL COST **	719	694	1731	397	390	1052	526	658	75	411	407	265	1040	801	973	1390	1162	860	374

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

FAP ROUTE NO 1
SHEET 1 OF 7

ACCUM. ROUTE MILEAGE	666.4
LENGTH (MILES)	0.3
FINANCIAL DIST.	1
CLASS (RURAL-URBAN-FOREST)	FR
NO. OF LANES	2
EXISTING ROADWAY WIDTH	42
SUFFICENCY RATING	90
DESIGN ADT 20 YEAR	2000
NO. OF LANES & DESIGN WIDTH	2-44
TIME OF IMPROVEMENT (YEARS)	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)
ESTIMATED NEEDS IN THOUSANDS	
RIGHT OF WAY	20
UTILITIES	10
GRADE & DRAINAGE	16
BASE & SURFACE	8
STRUCTURES	250
INCIDENTALS ●	
TOTAL COST ●●	304

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'G IS INCLUDED



ACCUM. ROUTE MILEAGE	80.3	89.5	99.3	106.4	113.3	119.3	124.1	124.8	128.4	138.4	140.1
LENGTH (MILES)	9.2	9.8	7.1	6.9	6.0	4.8	0.7	3.6	10.0	1.7	2.4
FINANCIAL DIST.	1	1	1	1	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	FR	R	R	R	R	U	R	R	R	FR	FR
NO. OF LANES	2	2	2	2	2	4	4	2	2	2	2
EXISTING ROADWAY WIDTH	30	26	26	26	30	80	80	30	26	26	30
SUFFICENCY RATING	56	46	52	52	41	95	95	21	26	26	47
DESIGN ADT 20 YEAR	1400	1400	2200	2200	2200	8000	9900	4000	3600	3600	3600
NO OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40			2-44	2-44	2-44	2-44
TIME OF IMPROVEMENT (YEARS)	77-86	68-71	68-71	72-76	68-71			1957	1967	1967	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)			(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS											
RIGHT OF WAY	37	39	70	51	140			14	40	17	10
UTILITIES	9	10	7	7	12			7	10	9	2
GRADE & DRAINAGE	902	463	547	341	181			116	335	54	137
BASE & SURFACE	618	658	553	432	470			704	846	147	202
STRUCTURES			46		50			742			486
INCIDENTALS ●	47	42	87	29	25			15	44	7	12
TOTAL COST ●●	1517	1212	1270	850	878			1198	1265	230	849

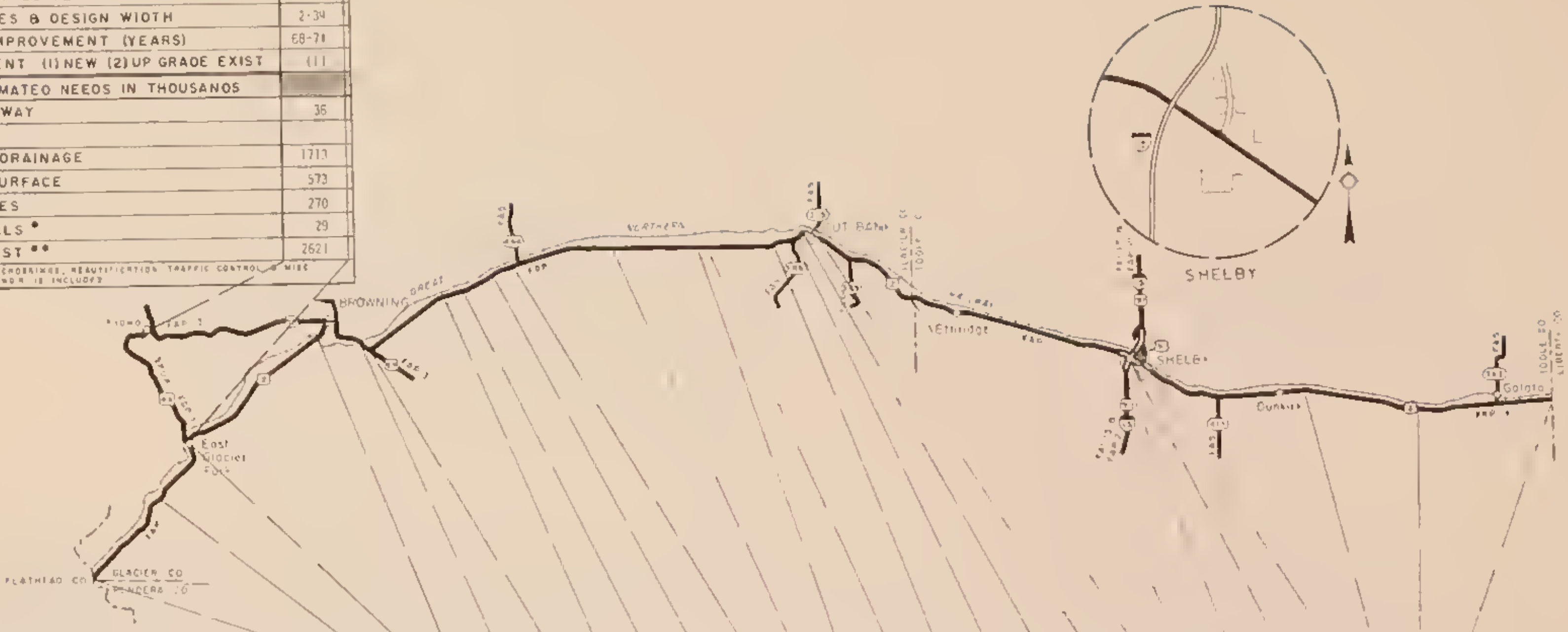
ACCUM. ROUTE MILEAGE	142.5	153.4	156.6	157.1	159.4	164.6	166.1	171.0	177.5	184.0
LENGTH (MILES)	10.9	3.2	0.5	2.3	5.2	1.5	4.9	6.5	6.5	12.6
FINANCIAL DIST.	1	1	1	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR
NO. OF LANES	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	28	32	28	26	30	32	32	32	32
SUFFICENCY RATING	16	50	95	52	69	51	69	95	95	95
DESIGN ADT 20 YEAR	3000	1000	1000	1000	1000	1000	1000	1000	1000	1000
NO OF LANES & DESIGN WIDTH	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	1957	72-76	77-86	72-76	77-86	72-76	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY	44	13		9	21	6				
UTILITIES	11	3		2	5	1				
GRADE & DRAINAGE	618	502	11	233	234	153	105	139	74	276
BASE & SURFACE	920	198	5	142	285	81	134	53	53	101
STRUCTURES					71					
INCIDENTALS ●	54	27		12	21	8	17	65	13	28
TOTAL COST ●●	1647	779	16	398	637	249	252	257	140	405

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'G IS INCLUDED

FAP ROUTE NO 1
& W GLACIER SPUR
SHEET 2 OF 7

ACCUM ROUTE MILEAGE	666.7
LENGTH (MILES)	11.9
FINANCIAL DIST	2
CLASS (RURAL-URBAN-FOREST)	R
NO OF LANES	2
EXISTING ROADWAY WIDTH	22
SUFFICENCY RATING	49
DESIGN ADT 20 YEAR	500
NO. OF LANES & DESIGN WIDTH	2-34
TIME OF IMPROVEMENT (YEARS)	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)
ESTIMATED NEEDS IN THOUSANDS	
RIGHT OF WAY	36
UTILITIES	
GRADE & DRAINAGE	1713
BASE & SURFACE	573
STRUCTURES	270
INCIDENTALS *	29
TOTAL COST **	2621

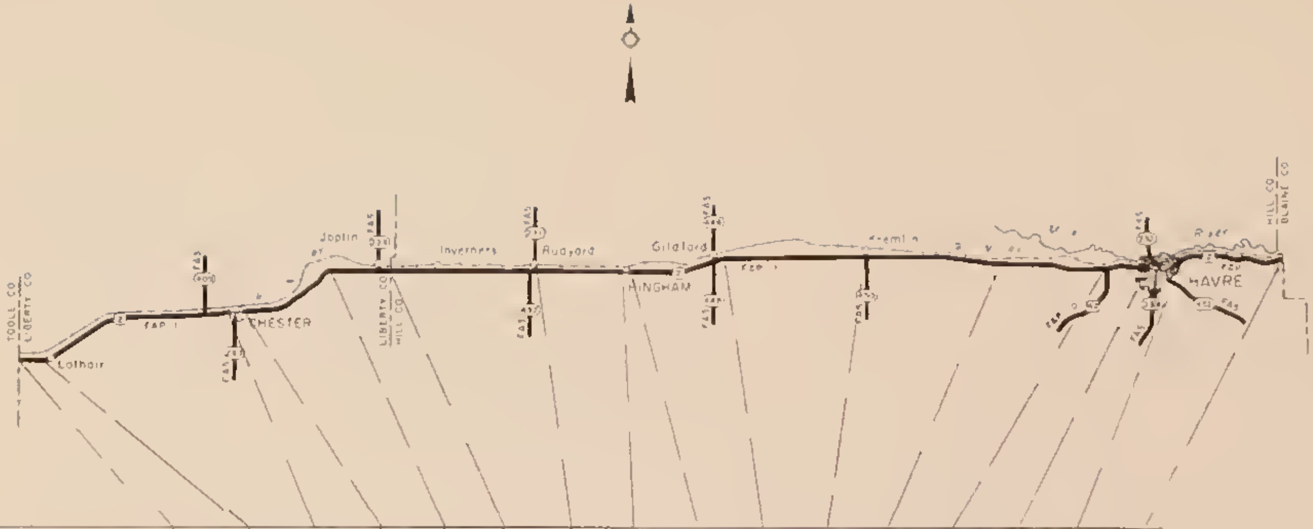
* RT ANGLE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED



ACCUM. ROUTE MILEAGE	196.6	203.0	208.9	219.3	222.5	222.8	227.6	228.7	230.8	232.0	239.1	245.4	245.9	250.9	253.0	253.6	254.6	262.1	269.7	276.8	277.9	278.8	290.4	298.4	
LENGTH (MILES)	6.4	5.8	10.4	3.2	0.3	4.8	1.1	2.1	1.2	7.1	6.3	0.5	5.0	2.1	0.6	1.0	7.5	7.6	7.1	1.1	0.9	11.6	8.0	7.3	
FINANCIAL DIST	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CLASS (RURAL-URBAN-FOREST)	FR	FR	R	R	R	R	R	R	R	R	R	R	R	R	R	U	R	R	R	R	U	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2	
EXISTING ROADWAY WIDTH	28	34	32	42	32	24	32	24	30	24	24	32	24	24	44	40	40	32	32	76	42	32	32	32	
SUFFICENCY RATING	56	78	52	43	44	50	68	52	68	51	47	90	49	20	61		95	95	58	93	80	82	83	76	
DESIGN ADT 20 YEAR	1400	1400	1400	1600	3200	1800	1800	1600	1600	1600	1600	1600	1600	4000	4000	6000	3000	2000	2000	4000	6000	1800	1800	1600	
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-44	2-44		2-40	2-40	4-76	2-44	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	72-76	68-71	68-71	72-76	77-86	72-76	77-86	72-76	68-71	77-86	68-71	1967	77-86	72-76		77-86	77-86	77-86	77-86	77-86	77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(1)	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)		(2)	(2)		(1)	(2)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS																									
RIGHT OF WAY	26		42	13	1	19		8	5	28	25	2	60	8		20			5		14	12	10	8	
UTILITIES			13			31		2	1	7	6	1	9			4					4				
GRADE & DRAINAGE	351	76	571	181	3	145	5	62	35	213	190	15	149	92		90		49	67		54	51	35	32	
BASE & SURFACE	351	120	571	202	7	296	10	128	71	437	398	30	306	129	8	102		75	152	10	68	104	172	65	
STRUCTURES		88												259											
INCIDENTALS *	27	12	45	13	1	18	2	8	4	72	23	2	18	8	1	18		15	16	1	227	24	68	63	
TOTAL COST **	755	296	1242	409	12	509	17	208	116	757	642	50	544	496	9	274		139	276	11	367	189	285	168	

* RT ANGLE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

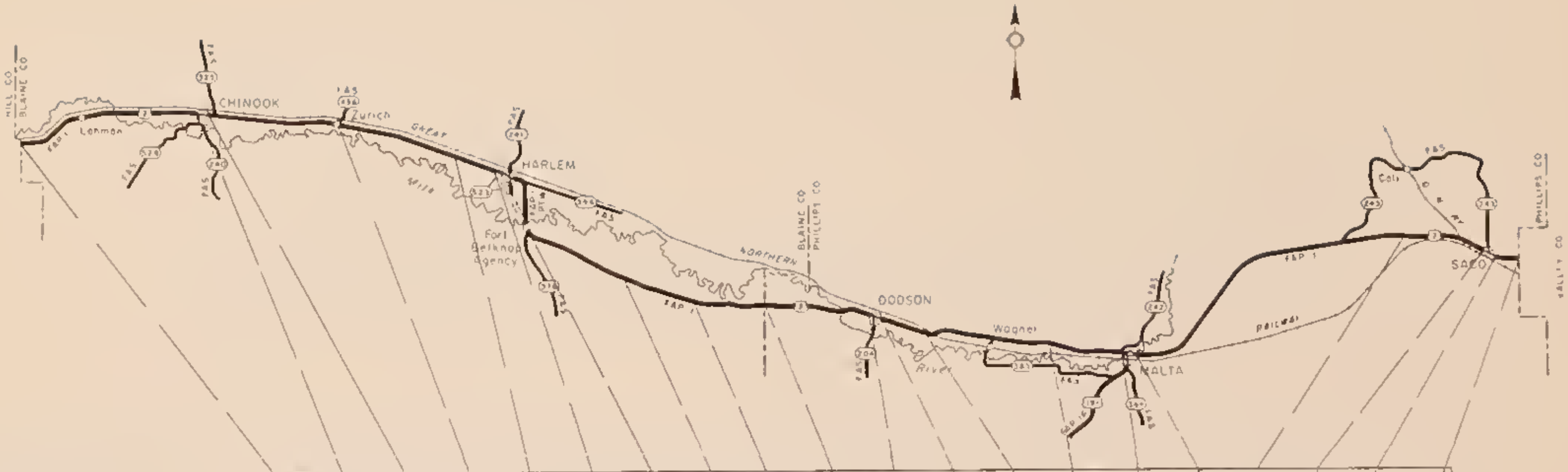
FAP ROUTE NO 1
& E GLACIER SPUR
SHEET 3 OF 7



ACCUM. ROUTE MILEAGE	305.7	306.7	320.5	321.4	328.4	331.4	340.7	346.5	347.0	353.4	362.4	371.0	378.0	380.2	382.3	
LENGTH (MILES)	1.0	13.8	0.9	7.0	3.0	9.3	5.8	0.5	6.4	9.0	8.5	7.0	2.2	2.1	7.5	
FINANCIAL DIST.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CLASS (RURAL-URBAN-FOREST)	R	R	U	R	R	R	R	U	R	R	R	R	R	U	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	
EXISTING ROADWAY WIDTH	32	26	24	24	24	24	32	32	32	32	32	32	40	56	32	
SUFFICENCY RATING	72	69	80	40	41	44	92	98	83	54	53	76	46	98	51	
DESIGN ADT 20 YEAR	1600	1600	1800	1800	1800	1800	1800	1800	2000	2000	2600	2600	6400	3000	4000	
NO OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	4-83	4-72	2-44	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	68-71	68-71	68-71	77-86	77-86	77-86	72-76	72-76	77-86	68-71	77-86	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(2)	(1)	(1)	(1)	(2)	(2)	(2)	(1)	(1)	(2)	(2)	(2)	(1)	
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY		48	[illegible]	21	12	37		10		27	26		44	136	30	
UTILITIES		3	3	14	6	9		5		41	107		11	8		
GRADE & DRAINAGE	4	416	35	279	90	335	25	3	28	271	200	31	106	216	300	
BASE & SURFACE	21	1077	85	534	233	574	52	5	73	333	531	67	216	700	500	
STRUCTURES			79									90			62	
INCIDENTALS ●	2	50	14	30	12	30	10		12	29	33	12	12	47	31	
TOTAL COST ●●	27	1602	250	878	353	991	87	23	113	701	953	196	389	997	938	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

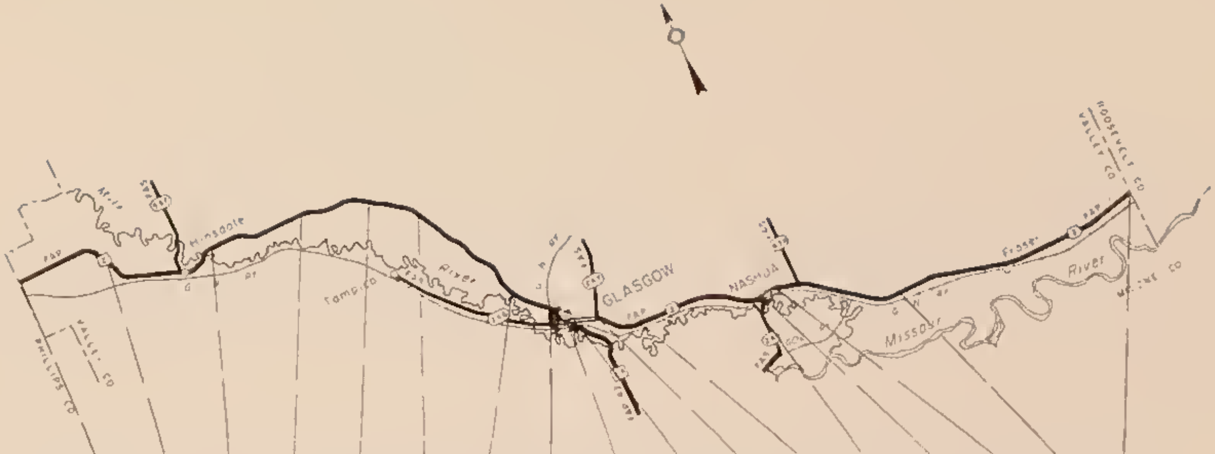
FAP ROUTE NO 1
SHEET 4 OF 7



ACCUM. ROUTE MILEAGE	389 8	402 3	402.8	412 1	420 0	423 3	427.5	433 9	438 6	445.0	452.4	453 2	456 3	465 3	470.2	470.9	493 1	498.1	499.0
LENGTH (MILES)	12.5	0.5	9.3	7.9	2.5	4.2	6.4	4.7	6.4	7.4	0 8	3 1	9 0	4 9	0.7	22.1	5 0	0 9	1.5
FINANCIAL DIST.	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	U	R	R	R	R	R	R	R	R	U	R	R	R	U	R	R	U	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	30	30	32	32	30	30	24	24	24	44	26	32	30	40	40	40	28	26
SUFFICENCY RATING	69	65	64	70	86	35	69	48	54	45	70	54	81	54	95	95	95	85	53
DESIGN ADT 20 YEAR	3200	4000	3000	2700	2600	2600	1600	1600	1600	1700	2000	2000	2000	2000	2000	1800	1800	2000	2000
NO. OF LANES & DESIGN WIDTH	2-44	2-44	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-40	2-40		2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	68-71	77-86	77-86	77-86	1967	77-86	68-71	72-76	68-71	77-86	77-86	77-86	77-86	77-86		77-86	77-86	72-76
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(1)	(2)	(1)	(2)		(1)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS																			
RIGHT OF WAY	98	25	119	95	30	17	25	19	26	30	28	12		20				30	
UTILITIES	346	5								7	5	3		5				5	
GRADE & DRAINAGE	723	62	397	237	75	126	192	132	192	243	44	34	40	160			5	4	7
BASE & SURFACE	185	44	619	487	154	329	395	280	395	566	68	129	103	382	4		5	22	36
STRUCTURES	277		263	67			59		73	310		70	92				100		
INCIDENTALS ●	49	10	49	29	9	17	24	17	24	31	18	9	17	20	6			10	3
TOTAL COST ●●	1678	146	1447	915	268	489	696	448	710	1187	163	256	252	587	10		110	71	46

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG R IS INCLUDED

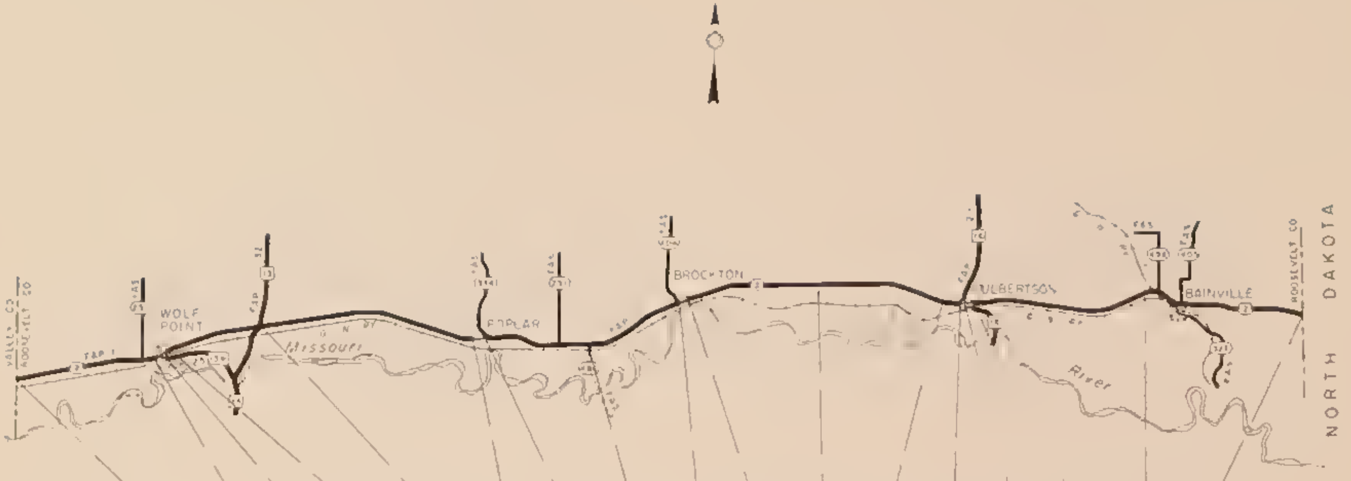
FAP ROUTE NO 1
SHEET 5 OF 7



ACCUM. ROUTE MILEAGE	500.5	507.1	514.7	520.5	525.6	528.3	536.7	539.7	540.7	541.5	542.9	545.3	553.7	554.2	555.1	563.9
LENGTH (MILES)	6.6	7.6	5.8	5.1	2.7	8.4	3.0	1.0	0.8	1.4	2.4	8.4	0.5	0.9	8.8	16.3
FINANCIAL DIST.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	U	U	R	R	R	R	U	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	4	4	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	28	40	28	26	26	26	28	38	84	84	36	30	32	32	32	32
SUFFICENCY RATING	60	95	70	57	57	67	33	60	95	95	95	53	87	97	87	87
DESIGN ADT 20 YEAR	2000	2000	2200	2200	2200	2200	2200	6000	9900	6600	2200	2200	2200	2200	2000	2000
NO. OF LANES & DESIGN WIDTH	2-40		2-40	2-40	2-40	2-40	2-40	4-84			2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86		77-86	77-86	77-86	77-86	1967	68-71			77-86	72-76	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)		(2)	(2)	(2)	(2)	(1)	(1)			(2)	(1)	(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY						10	30	100				34				
UTILITIES						8		15								
GRADE & DRAINAGE	29		35	22	18	77	91	55			7	252	3	4	38	71
BASE & SURFACE	157		138	122	64	201	233	153			14	658	12	22	210	389
STRUCTURES			105	129	151	152	175					125			75	
INCIDENTALS ●	15		12	11	6	18	12	17			3	35	1	7	19	35
TOTAL COST ●●	201		290	284	239	426	547	340			24	1104	16	32	342	495

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

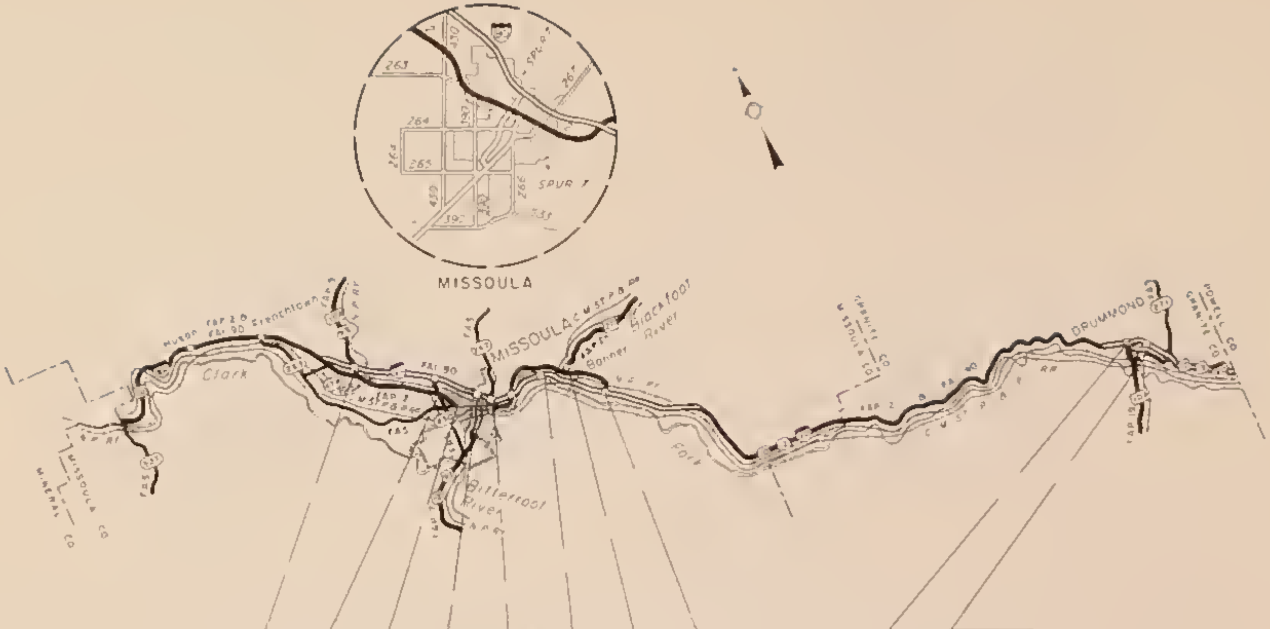
FAP ROUTE NO 1
SHEET 6 OF 7



ACCUM. ROUTE MILEAGE	580.2	589.6	590.3	590.8	596.6	611.0	611.4	618.6	625.1	625.6	634.2	641.9	643.6	643.9	644.3	655.6
LENGTH (MILES)	9.4	0.6	0.5	5.8	14.4	0.4	7.2	6.5	0.5	8.6	7.7	1.7	0.3	0.4	11.3	10.8
FINANCIAL DIST.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	U	R	R	R	U	R	R	U	R	R	R	U	U	R	R
NO. OF LANES	2	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	84	76	72	32	60	24	24	30	30	30	32	50	50	32	32
SUFFICENCY RATING	72	95	64	69	84	54	35	44	54	54	58	89	95	95	82	82
DESIGN ADT 20 YEAR	2400	5000	3000	3000	2200	5000	2600	2400	2400	1400	1400	1400	4000	4000	1600	1600
NO OF LANES & DESIGN WIDTH	2-40			2-44	2-40	2-48	2-40	2-40	2-44	2-40	2-40	2-40			2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86			77-86	77-86	1967	1967	68-71	68-73	72-76	77-86	77-86			77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)			(2)	(2)	(2)	(1)	(1)	(2)	(1)	(2)	(2)			(2)	(2)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY				6			37	29	16	74						
UTILITIES				2		2	35	20	5							
GRADE & DRAINAGE	41			38	63	10	229	197	17	405	50	10			50	73
BASE & SURFACE	224			172	344	47	563	507	51	672	184	41			129	129
STRUCTURES				99	285					70					35	47
INCIDENTALS ●	20			13	31	15	31	27	9	40	17	2			4	5
TOTAL COST ●●	285			330	723	74	896	780	98	1221	251	53			218	254

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

FAP ROUTE NO 1
SHEET 7 OF 7

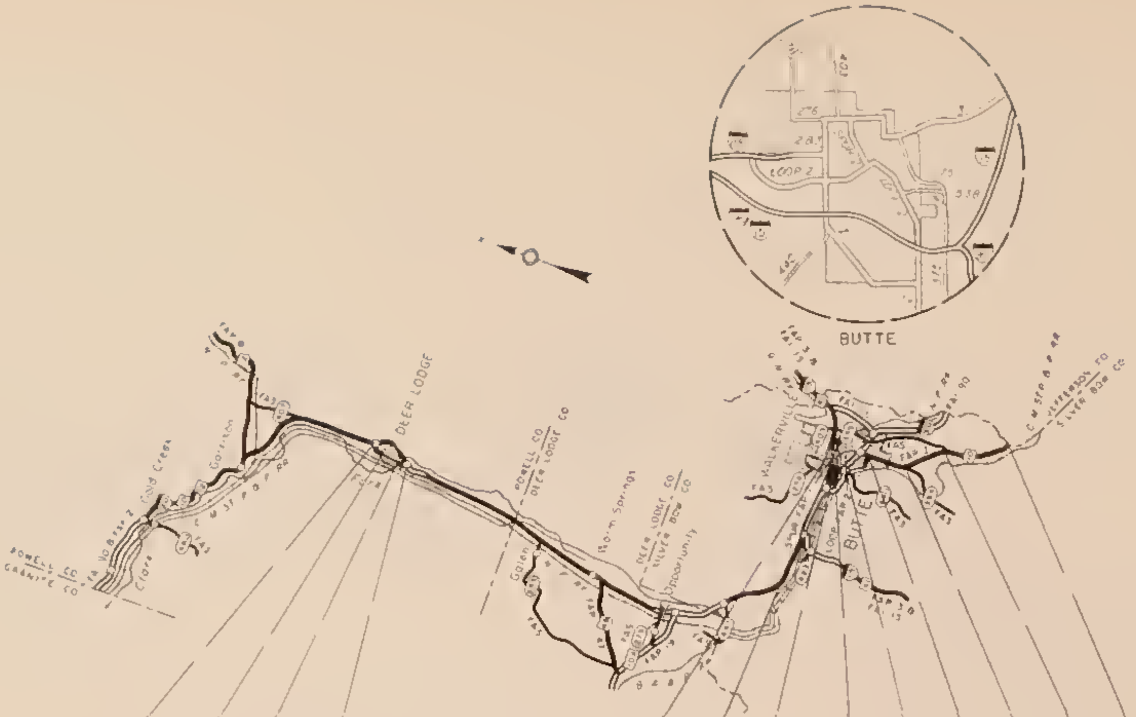


ACCUM. ROUTE MILEAGE		97.2	102.7	104.7	105.5	105.5	111.6	112.6	COINCIDENT WITH I 90	156.0	
LENGTH (MILES)		5.5	1.6	1.2	1.0	5.1	1.0	3.3		0.9	
FINANCIAL DIST.		8	8	8	8	8	8	8		9	
CLASS (RURAL-URBAN-FOREST)	FROM LOOKOUT PASS TO REIS	R	U	U	U	R	R	R		U	
NO. OF LANES		2	2	2	4	2	2	2		2	
EXISTING ROADWAY WIDTH		40	30	60	66	30	32	28		46	AHEAD TO DEER LODGE
SUFFICENCY RATING		70	45	90	90	54	50	54		85	
DESIGN ADT 20 YEAR		4000	8000	9900	9300	2400	4600	1000		1500	
NO. OF LANES & DESIGN WIDTH		2-44	4-88			2-40	2-40	2-40		2-46	
TIME OF IMPROVEMENT (YEARS)		77-86	1967			72-76	72-76	72-76		77-85	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(1)			(2)	(2)	(2)		(2)	
ESTIMATED NEEDS IN THOUSANDS											
RIGHT OF WAY	COINCIDENT WITH I-90		160			51	5	33			COINCIDENT WITH I-90
UTILITIES			48			10	5	7			
GRADE & DRAINAGE		25	164			22	4	15		21	
BASE & SURFACE		132	272			122	21	70		19	
STRUCTURES			180			60					
INCIDENTALS ●		15	20			6	2	7		5	
TOTAL COST ●●		172	844			271	37	132		45	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

●● 10% FOR ENG'G IS INCLUDED

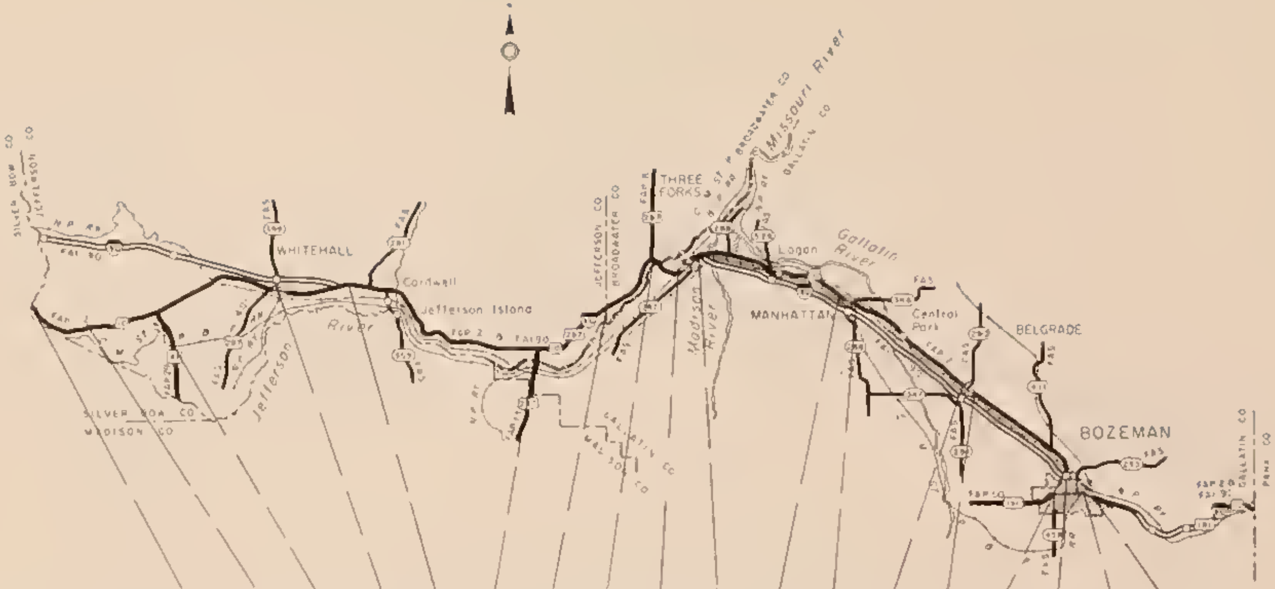
FAP ROUTE NO 2
SHEET 1 of 6



ACCUM. ROUTE MILEAGE	187.6	188.5	189.6	COINCIDENT WITH I - 90	210.5	210.0		226.4	227.1	229.2	231.5	235.0
LENGTH (MILES)	0.9	1.1	1.0		0.5	0.3		0.7	2.1	2.3	3.5	5.4
FINANCIAL DIST.	8	8	8		9	9		9	9	9	9	9
CLASS (RURAL-URBAN-FOREST)	R	U	R		U	U		U	U	R	R	FR
NO. OF LANES	2	2	2		2	2		4	2	2	2	2
EXISTING ROADWAY WIDTH	32	20	32		44	60		64	26	30	30	30
SUFFICENCY RATING	95	80	54		50	50		50	50	65	65	65
DESIGN ADT 20 YEAR	2800	4000	2800		9999	9999		9000	3600	1000	600	600
NO. OF LANES & DESIGN WIDTH			2-44		4-44	4-60		4-64	2-44	2-40	2-34	2-34
TIME OF IMPROVEMENT (YEARS)			72-76		1967	1967		68-71	68-71	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST			(2)		(2)	(2)		(2)	(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY			5					42	105	9		
UTILITIES			2		5			7	21	5		
GRADE & DRAINAGE			4		25	5		39	69	37	23	65
BASE & SURFACE			21		60	40		102	175	108	56	76
STRUCTURES								100				
INCIDENTALS *			2		20	8		8	20	6	7	11
TOTAL COST **			34		110	53		298	393	165	85	152

* RY GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'G IS INCLUDED

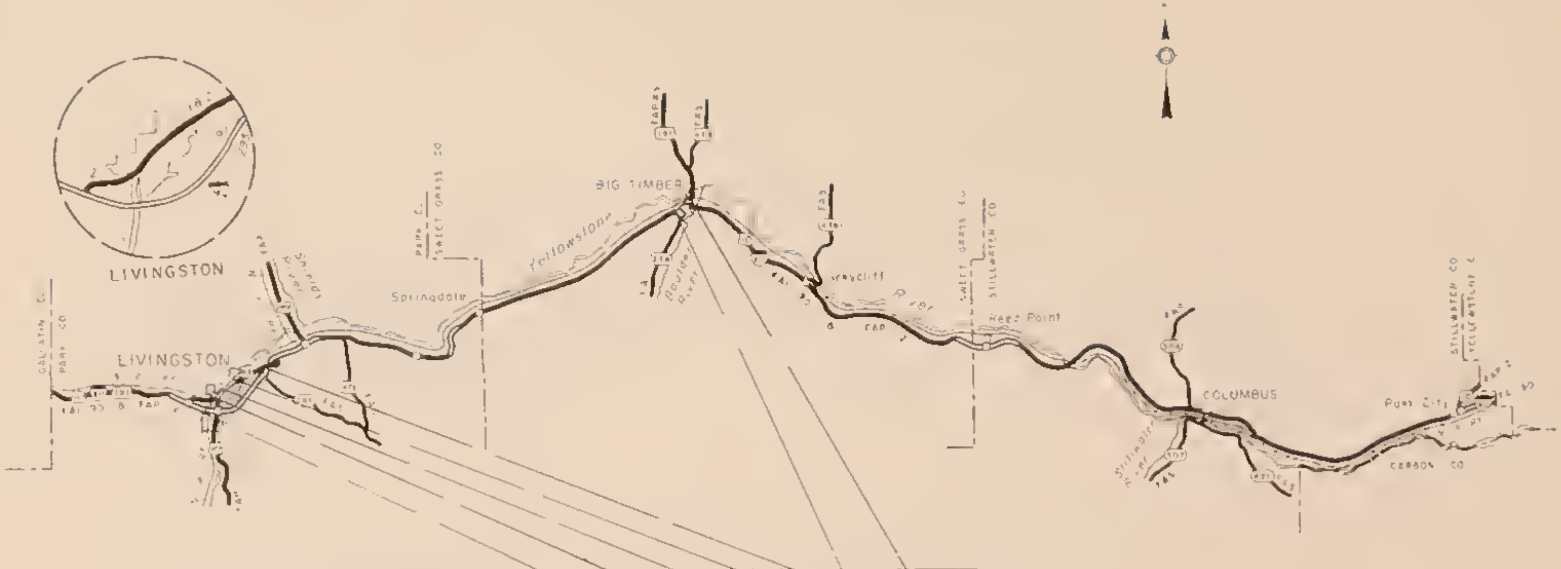
FAP ROUTE NO 2
SHEET 2 of 6



ACCUM. ROUTE MILEAGE	240.4	243.8	249.1	COINCIDENT WITH I 90	267.6	276.3	281.6	286.3	288.4	291.1	301.7	302.6	311.1	312.0	320.5	321.4	322.3	COINCIDENT WITH I 90 TO LIVINGSTON
LENGTH (MILES)	3.4	5.3	8.3		12.7	5.3	4.7	2.1	1.0	10.6	0.9	8.5	0.9	8.5	0.9	0.9	0.7	
FINANCIAL DIST.	7	7	7		7	7	7	10	10	10	10	10	10	10	10	10	10	
CLASS (RURAL-URBAN-FOREST)	FR	R	R		R	R	R	R	U	R	U	R	U	R	U	U	U	
NO. OF LANES	2	2	2		2	2	2	2	2	2	2	2	2	2	2	4	4	
EXISTING ROADWAY WIDTH	26	26	30		26	30	26	30	34	26	60	28	40	28	72	62	32	
SUFFICENCY RATING	55	55	56		56	56	56	52	60	58	60	65	60	60	98	98	40	
DESIGN ADT 20 YEAR	600	600	500		600	500	500	1200	1300	800	1600	1200	1600	1200	9000	9900	6000	
NO. OF LANES & DESIGN WIDTH	2-34	2-34	2-34		2-34	2-34	2-34	2-40	2-44	2-40	2-44	2-40	2-44	2-40			4-72	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86		77-86	77-86	77-85	72-76	77-86	77-86	77-86	77-86	77-86	77-86			1967	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)		(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)			(1)	
ESTIMATED NEEDS IN THOUSANDS																		
RIGHT OF WAY								4	8	53	6	85	72	85			70	
UTILITIES								2	5	21	3	17	18	17			30	
GRADE & DRAINAGE	42	57	27		272	17	15	14	67	170	31	94	43	94			45	
BASE & SURFACE	56	88	136		160	87	77	43	85	491	85	397	68	393			75	
STRUCTURES			150		100	40	80			480		40						
INCIDENTALS *	7	11	10		20	10	9	4	8	32	13	24	13	24			7	
TOTAL COST **	105	156	329		567	154	181	67	271	1247	138	653	214	613			227	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

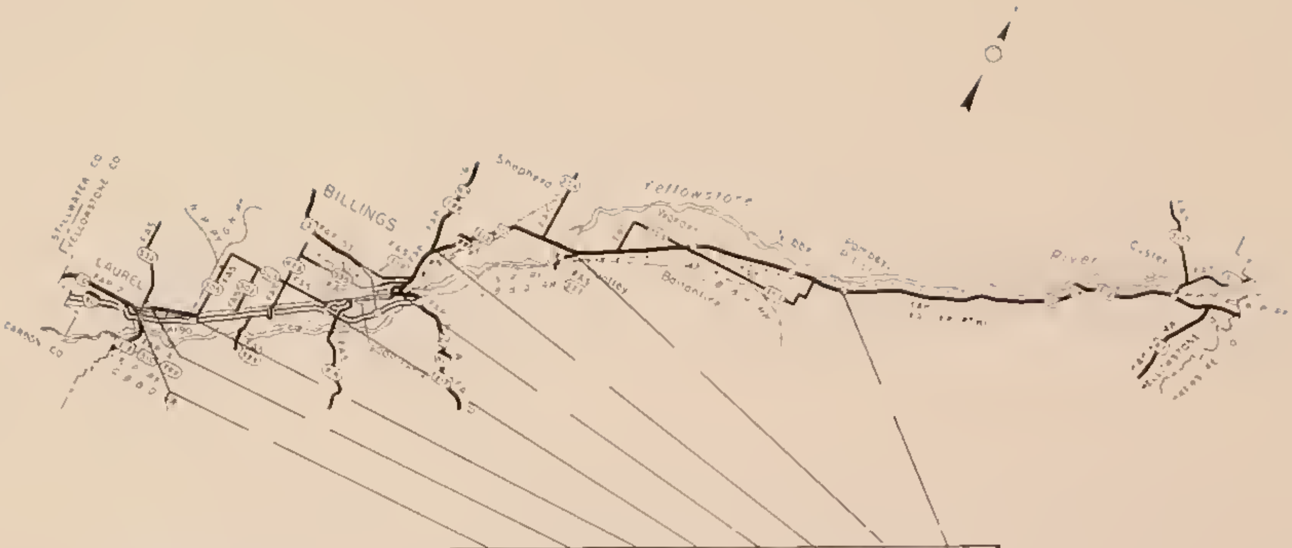
FAP ROUTE NO 2
SHEET 3of6



ACCUM ROUTE MILEAGE	344.3	345.9	346.7	347.9		380.2		
LENGTH (MILES)	1.6	0.8	1.2	2.6		0.8		
FINANCIAL DIST.	10	10	10	10		10		
CLASS (RURAL-URBAN-FOREST)	U	U	U	R		U		
NO OF LANES	2	2	2	2		2		
EXISTING ROADWAY WIDTH	32	39	40	24		58		
SUFFICENCY RATING	66	65	80	27	TO BIG TIMBER	90		
DESIGN ADT 20 YEAR	1800	2200	6000	4000		1500	TO LAUREL	
NO. OF LANES & DESIGN WIDTH	2-40	2-40		2-44		2-58		
TIME OF IMPROVEMENT (YEARS)	77-86	77-66		1967		77-86		
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)		(2)		(2)		
ESTIMATED NEEDS IN THOUSANDS								
RIGHT OF WAY				13	COINCIDENT WITH I 90		COINCIDENT WITH I 90	
UTILITIES				5				
GRADE & DRAINAGE	10	9		85				
BASE & SURFACE	34	23		172		10		
STRUCTURES				500				
INCIDENTALS ●	3	9		10		5		
TOTAL COST ●●	47	41		785		15		

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

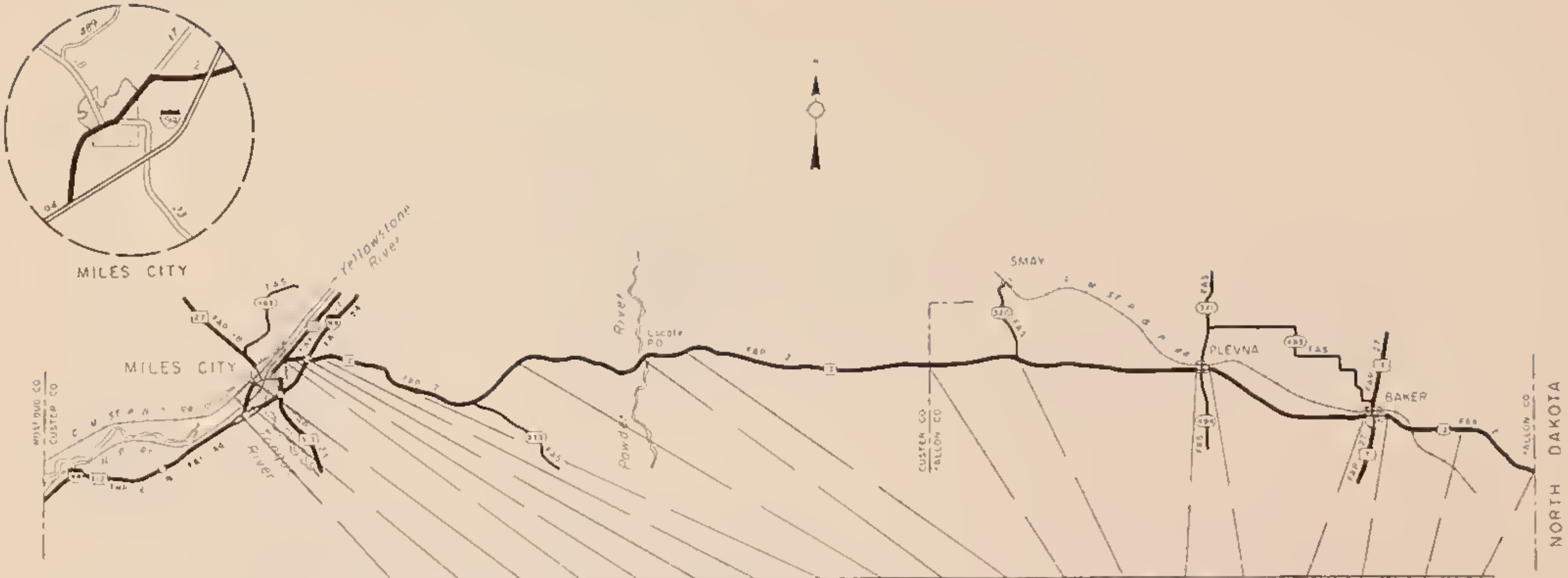
FAP ROUTE NO 2
SHEET 4 of 6



ACCUM. ROUTE MILEAGE	448.2	448 7		459.8	464 7	468 2	478 6	
LENGTH (MILES)	0.5	2.9		4 9	3.5	10.4	15.2	
FINANCIAL DIST	11	11		11	11	11	11	
CLASS (RURAL-URBAN-FOREST)	U	R		U	U	R	R	
NO. OF LANES	2	2	WITH I 90	4	4	2	2	
EXISTING ROADWAY WIDTH	55	30		60	60	30	30	TO MILES CITY
SUFFICENCY RATING	70	55		70	80	80	75	
DESIGN ADT 20 YEAR	6000	2400		9900	9600	800	600	
NO. OF LANES & DESIGN WIDTH		2-40				2-40	2-36	
TIME OF IMPROVEMENT (YEARS)		72-76				77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)				(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS								COINCIDENT WITH I 94
RIGHT OF WAY		15				0	0	
UTILITIES		6	COINCIDENT			5	5	
GRADE & DRAINAGE		97				62	46	
BASE & SURFACE		179				94	68	
STRUCTURES								
INCIDENTALS ●		11				10	12	
TOTAL COST ●●		308				171	131	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

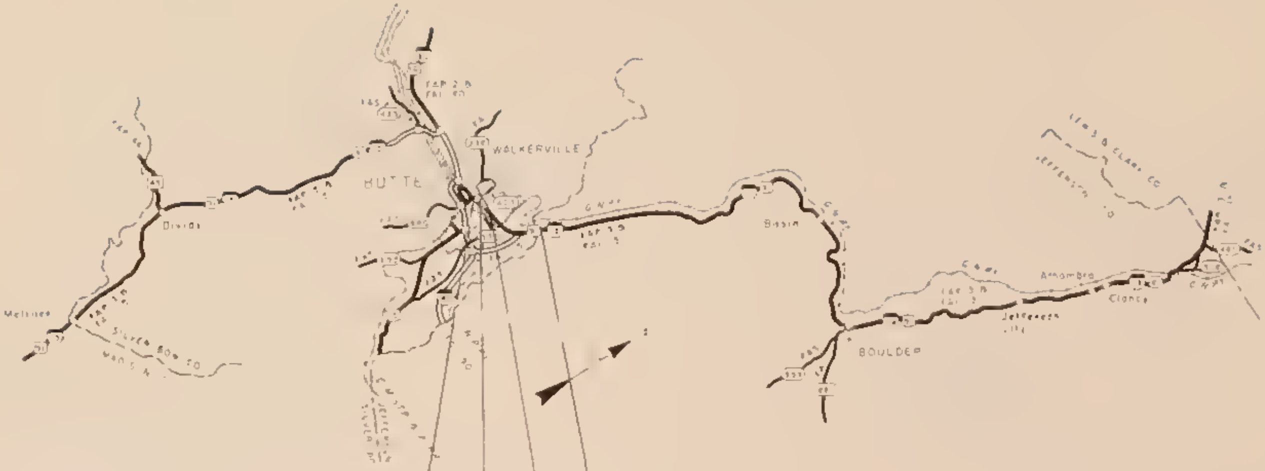
FAP ROUTE NO 2
SHEET 5 OF 6



ACCUM. ROUTE MILEAGE	609.6	610.5	611.9	614.4	614.6	615.7	616.6	622.9	631.0	641.2	643.8	661.5	667.6	680.0	680.8	692.5	693.8	699.0
LENGTH (MILES)	0.9	1.4	2.5	0.2	1.1	0.9	6.3	8.1	9.7	2.6	17.7	6.1	12.4	0.8	11.7	1.3	5.2	6.4
FINANCIAL DIST.	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	R	U	U	U	R	R	R	R	R	R	R	R	R	U	R	U	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	28	28	26	26	32	24	24	24	24	40	40	32	30	30	44	30	40
SUFFICENCY RATING	93	84	79	72	52	52	54	54	53	50	95	95	89	55	54	95	42	95
DESIGN ADT 20 YEAR	2400	2400	9000	2200	2200	2200	1000	1000	1000	1000	900	900	1000	1400	1540	4000	1900	1900
NO. OF LANES & DESIGN WIDTH	2-40	2-44	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40			2-40	2-40	2-40		2-40	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	68-71	72-76	72-76	77-86	72-76	72-76	72-76	72-76			77-86	68-71	72-76		68-71	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)			(2)	(1)	(1)		(1)	
ESTIMATED NEEDS IN THOUSANDS																		
RIGHT OF WAY				4	13		35	32	79	10				34	47		42	
UTILITIES			225	3	4		20	18		1				10	25		10	
GRADE & DRAINAGE	4	39	51	6	32	7	308	332	470	114			54	20	569		243	
BASE & SURFACE	11	119	235	17	85	11	421	444	554	174			486	60	915		408	
STRUCTURES			546							400			185	82			105	
INCIDENTALS ●		22	21		3		28	32	42	11			31	11	54		24	
TOTAL COST ●●	15	160	1078	30	137	18	804	908	1205	710			755	217	1611		832	

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR C&E IS INCLUDED

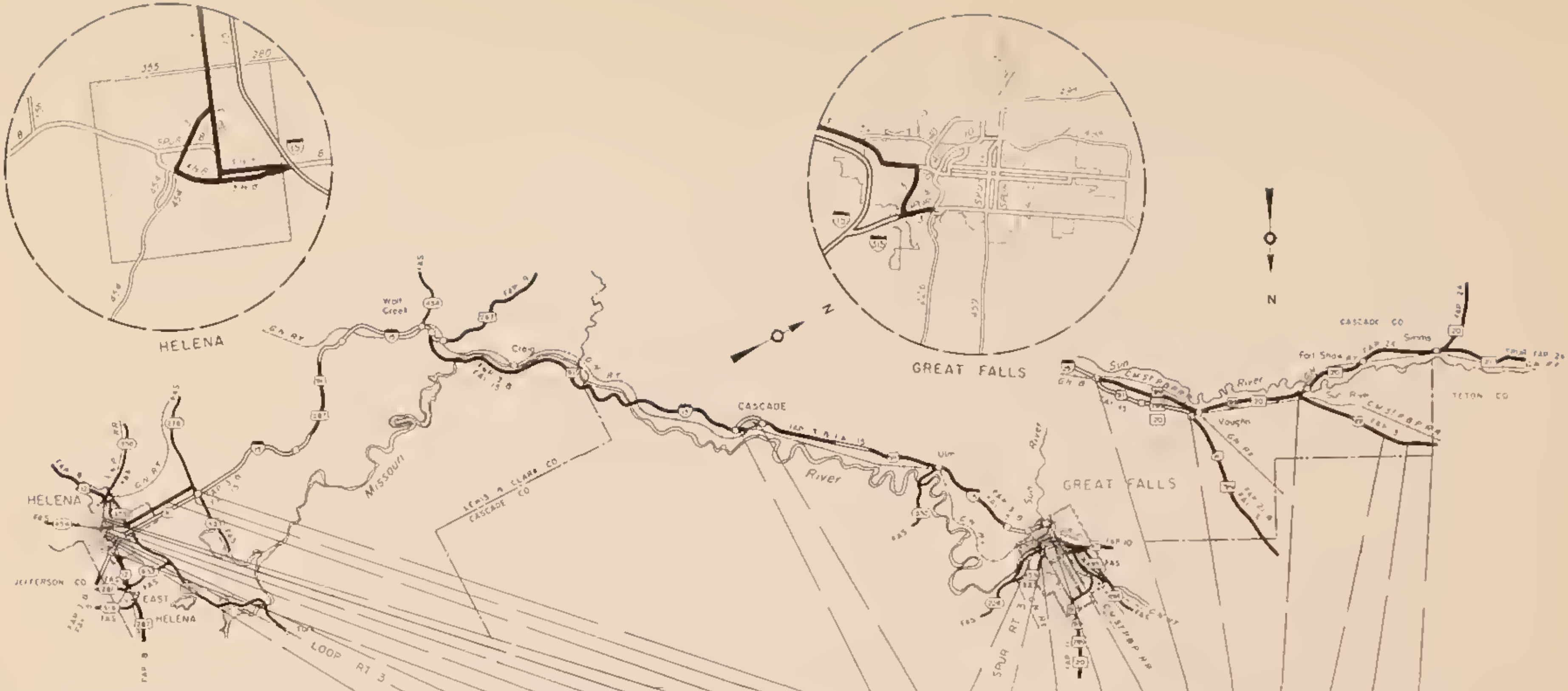
FAP ROUTE NO 2
SHEET 6 OF 6



ACCUM. ROUTE MILEAGE		128 7	129 3	130 9	
LENGTH (MILES)		0 6	1 6	3 3	
FINANCIAL DIST.		9	9	9	
CLASS (RURAL-URBAN-FOREST)		U	U	R	
NO. OF LANES		4	2	2	
EXISTING ROADWAY WIDTH	I 15 FROM MONIDA	70	56	26	I 15 TO HELENA
SUFFICENCY RATING		50	60	52	
DESIGN ADT 20 YEAR		20000	6000	2000	
NO. OF LANES & DESIGN WIDTH		4-70	2-56	2-40	
TIME OF IMPROVEMENT (YEARS)		1967	68-71	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS					
RIGHT OF WAY	COINCIDENT WITH		32	10	COINCIDENT WITH
UTILITIES		10	10	10	
GRADE & DRAINAGE		27	26	63	
BASE & SURFACE		168	136	81	
STRUCTURES				250	
INCIDENTALS *		5	20	5	
TOTAL COST **		110	224	419	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

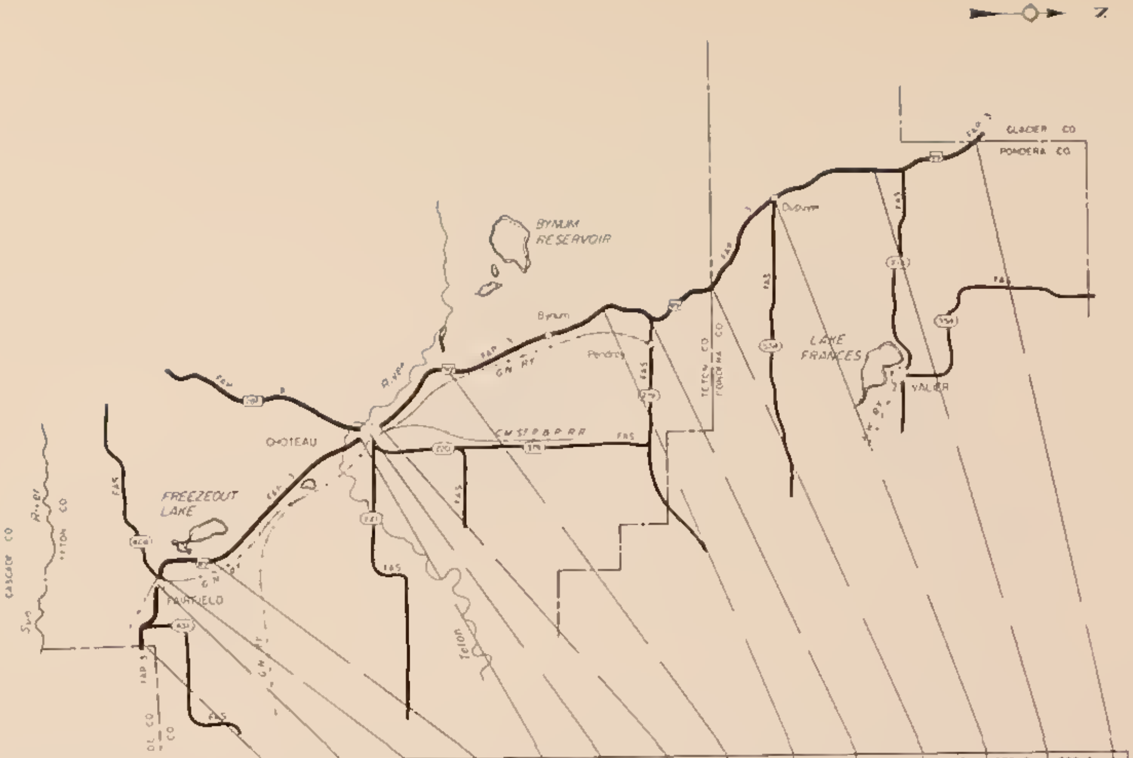
FAP ROUTE NO 3
SHEET 1 of 4



ACCUM. ROUTE MILEAGE	463.5	464.1		193.5	194.6	195.5	195.9	196.7	200.9	203.5		261.8		464.8		284.3	285.6	286.3	288.9	299.5	307.1	315.9	317.1	
LENGTH (MILES)	0.6	0.7		1.1	0.9	0.4	0.8	4.2	2.6	0.4		1.5		1.2		1.3	0.7	2.6	7.9	7.6	8.8	1.2	2.1	
FINANCIAL DIST.	7	7		7	7	7	7	7	7	7		6		6		6	6	6	6	6	6	6	6	
CLASS (RURAL-URBAN-FOREST)	U	U		U	U	U	U	U	R	R		U		U		U	U	U	R	R	R	R	R	
NO. OF LANES	4	2		4	2	2	2	2	2	2		2		2		2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	64	28		36	32	40	32	28	28	30		26		70		30	60	20	30	36	30	34	22	
SUFFICENCY RATING	80	40		89	68	52	82	82	51	98	COINCIDENT WITH I 15	68	COINCIDENT WITH I 15	60		60	70	60	62	18	55	78	47	
DESIGN ADT 20 YEAR	20000	6000		9000	9000	9000	8000	11000	4000	700		600		20000		9000	9000	9000	400	4000	1600	1600	1600	
NO. OF LANES & DESIGN WIDTH		2-44		4-36	2-44	2-44	2-44	2-44	2-44			2-36		4-70		4-80	4-60	4-80		2-44	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)		1967		77-86	68-71	1967	68-71	72-76	72-76			77-86		68-71		68-71	72-76	68-71		1967	72-76	77-86	68-71	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		121		121	111	121	121	111	121			121		121		111	121	121		111	111	121	111	
ESTIMATED NEEDS IN THOUSANDS																								
RIGHT OF WAY		10		10	90	10	10	50	71			15		50		130	25	260		91	34		25	
UTILITIES		6		6	30	6	6	17	8			5		25		30	10	50		39			11	
GRADE & DRAINAGE		21		18	30	13	16	135	83			7		16		153	50	257		336	364	6	62	
BASE & SURFACE		58		21	68	11	15	279	171			24		26		204	22	374		642	686	24	162	
STRUCTURES							300	100						1500		600				192	93			
INCIDENTALS *		14		4	2	2	3	17	10			6		4		28	6	33		36	40	2	8	
TOTAL COST **		109		59	220	42	350	594	303			57		1621		1145	113	974		1335	1217	32	268	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'S IS INCLUDED

FAP ROUTE 3
SHEET 2 of 4

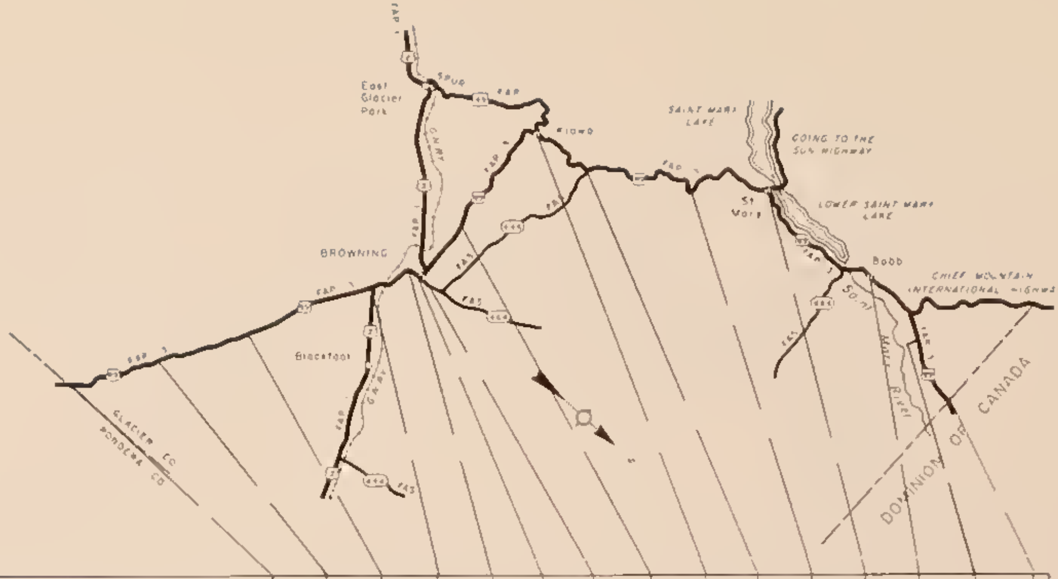


ACCUM ROUTE MILEAGE	319.2	322.1	323.0	327.2	339.5	340.2	340.9	346.3	358.4	361.3	366.9	373.8	382.2
LENGTH (MILES)	2.9	0.9	4.2	12.3	0.7	0.7	5.4	12.1	2.9	5.6	6.9	8.4	5.6
FINANCIAL DIST.	6	6	6	6	6	6	6	6	6	6	6	6	6
CLASS (RURAL-URBAN-FOREST)	R	U	R	R	U	U	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	4	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	22	26	24	30	30	70	26	24	24	24	24	24	34
SUFFICENCY RATING	37	35	45	54	83	70	43	47	50	52	49	48	95
DESIGN ADT 20 YEAR	2600	2000	1400	1400	4000	6000	1000	1000	1000	600	600	600	500
NO. OF LANES & DESIGN WIDTH	2-40	2-44	2-40	2-40	2-44	4-70	2-40	2-40	2-40	2-34	2-34	2-34	
TIME OF IMPROVEMENT (YEARS)	1967	1967	68-71	72-76	72-76	72-76	68-71	69-71	72-76	72-76	68-71	68-71	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(1)	(1)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS													
RIGHT OF WAY	35	18	50	49	23	15	22	73	9	17	21	25	
UTILITIES	15	6	21	5	10	10	5	13	3	6	7	8	
GRADE & DRAINAGE	100	48	172	452	62	32	161	400	155	239	267	323	
BASE & SURFACE	225	102	282	827	68	26	296	657	159	270	408	497	
STRUCTURES								199			180	94	
INCIDENTALS ●	12	11	17	50	3	5	19	46	12	20	27	32	
TOTAL COST ●●	387	185	542	1383	166	88	503	1448	338	552	910	979	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

●● 10% FOR ENGR IS INCLUDED

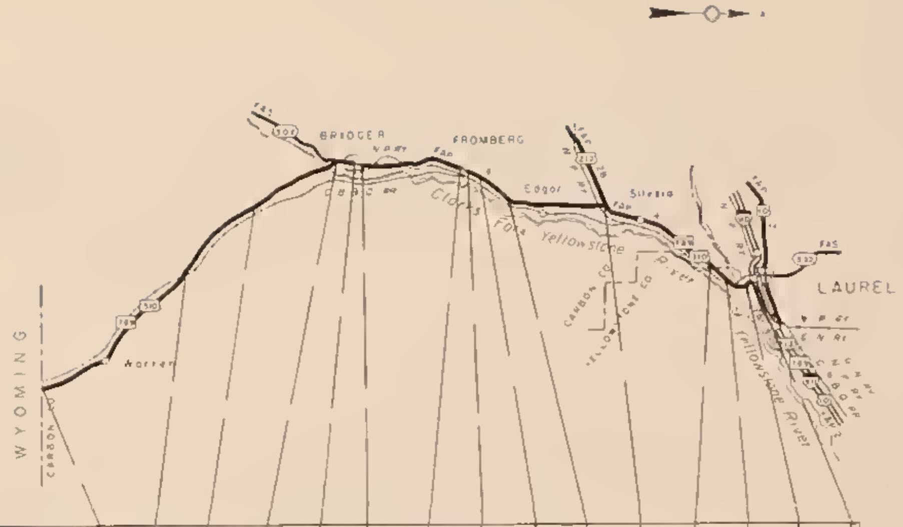
FAP ROUTE 3
SHEET 3of4



ACCUM. ROUTE MILEAGE	387.8	393.9	399.9		409.2	410.1	410.8	414.3	422.9	428.2	436.4	442.4	450.7	455.4
LENGTH (MILES)	6.1	6.0	9.2		0.9	0.7	3.5	8.6	5.3	8.2	6.0	8.3	4.7	5.8
FINANCIAL DIST.	2	2	2		2	2	2	2	2	2	2	2	2	2
CLASS (RURAL-URBAN-FOREST)	R	R	R		R	U	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2		2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	34	28		24	44	24	24	24	24	44	32	28	28
SUFFICENCY RATING	51	95	78	SEE ROUTE 1	36	55	47	51	43	44	95	80	55	71
DESIGN ADT 20 YEAR	800	800	800		1000	3000	1200	1200	1000	1000	1000	1000	900	600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40		2-44	2-44	2-40	2-40	2-40	2-40		2-40	2-40	2-24
TIME OF IMPROVEMENT (YEARS)	72-76	77-86	77-86		1967	68-71	68-71	72-76	68-71	68-71		77-86	72-76	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(2)		(2)	(1)	(1)	(1)	(1)	(1)		(2)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY	24		4		18	21	14	35	16	17			19	23
UTILITIES				COINCIDENT MILEAGE		3	7	6						
GRADE & DRAINAGE	268	38	60		12	17	105	562	891	1339		208	215	224
BASE & SURFACE	334	48	101		31	51	101	471	290	447		67	257	280
STRUCTURES			47						74				44	
INCIDENTALS ●	24	2	16		2	10	12	36	37	32		19	69	20
TOTAL COST ●●	650	88	228		63	102	329	1110	1308	1885		294	604	547

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

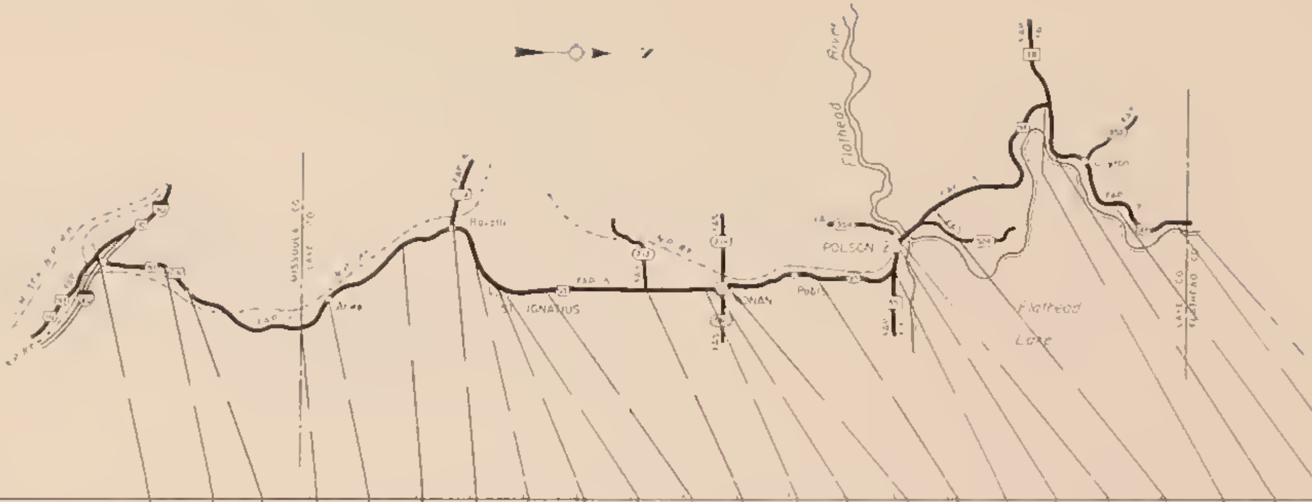
FAP ROUTE NO 3
SHEET 4 of 4



ACCUM. ROUTE MILEAGE	0.0	13.4	19.2	24.8	25.7	26.2	32.7	33.1	33.7	35.1	42.7	50.8	52.2	53.8
LENGTH (MILES)	13.4	5.8	5.6	0.9	0.5	6.5	0.4	0.6	1.4	7.6	8.1	1.4	1.6	0.3
FINANCIAL DIST.	11	11	11	11	11	11	11	11	11	11	11	11	11	11
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	U	R	U	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	4
EXISTING ROADWAY WIDTH	32	32	24	26	40	24	40	32	24	26	32	32	30	94
SUFFICENCY RATING	81	74	53	64	79	50	87	85	49	39	61	60	23	94
DESIGN ADT 20 YEAR	1300	1300	1300	1200	4800	2700	3200	3200	3200	3200	5100	5100	5100	7200
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-44	4-80	2-40	2-60	2-44	2-44	2-44	2-44	2-44	2-44	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	72-76	77-86	72-76	68-72	77-86	77-86	68-72	1967	77-86	77-86	1967	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(1)	(1)	(2)	(1)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY	4		43	11	16	78	8		17	91	97	17	32	
UTILITIES			17	16	5	55	5	5	17	87	16	3	7	
GRADE & DRAINAGE	69	25	242	44	21	281	8	3	57	351	358	62	94	
BASE & SURFACE	131	57	475	71	80	507	48	16	117	642	685	117	174	
STRUCTURES			187			35				85			600	
INCIDENTALS ●	25	11	27	4	17	32	3	1	6	38	38	6	7	
TOTAL COST ●●	229	93	987	139	139	988	72	25	219	1290	1194	205	874	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG & IS INCLUDED

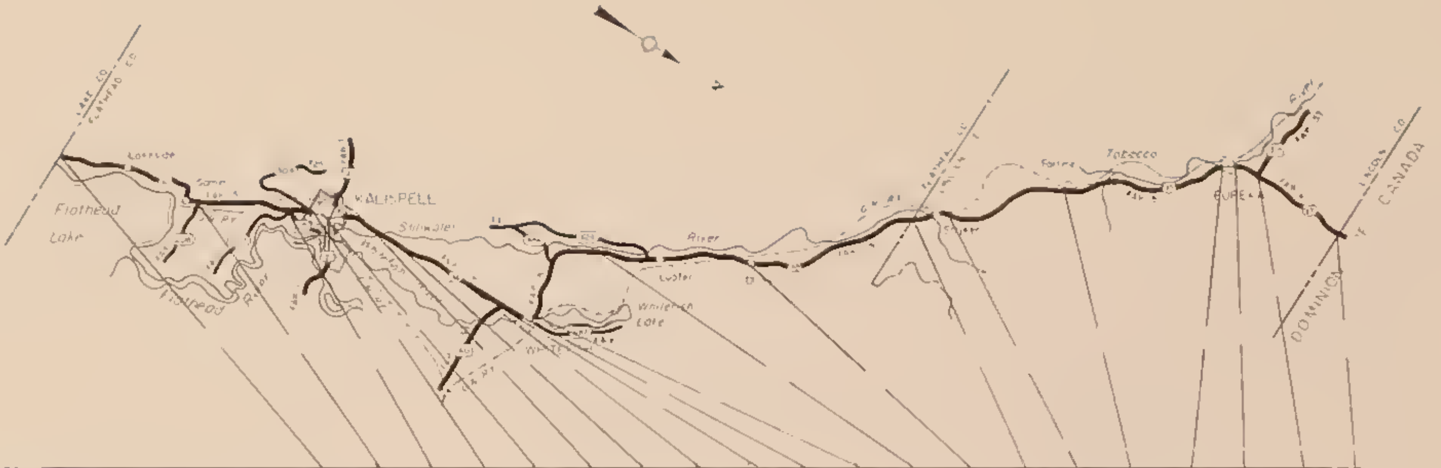
FAP ROUTE NO 4
SHEET 1 OF 1



ACCUM ROUTE MILEAGE	0.0	4.0	5.5	15.0	18.1	23.9	27.5	30.0	32.6	32.7	35.0	41.1	46.1	46.5	47.4	53.6	59.1	60.4	61.1	64.6	77.6	79.4	86.2	92.7
LENGTH (MILES)	4.0	1.5	9.5	3.4	5.9	3.1	2.5	2.6	0.1	2.3	6.1	5.0	0.4	0.9	6.2	5.5	1.3	0.7	3.5	13.0	1.8	6.8	6.5	0.7
FINANCIAL DIST.	8	8	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	U	R	R	R	U	U	R	R	R	U	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	32	36	30	32	32	44	32	32	32	32	40	44	44	44	32	40	44	30	32	34	24	34	32
SUFFICENCY RATING	37	43	97	39	63	64	67	68	95	62	34	95	95	98	95	51	41	99	56	70	72	44	79	97
DESIGN ADT 20 YEAR	4200	4200	4200	4000	4000	4000	3000	3000	3000	3100	3100	4200	4000	4800	4800	4600	6200	7000	2000	2000	1600	1800	1800	3000
NO. OF LANES & DESIGN WIDTH	2-44	2-44	2-44	2-44	2-44	2-44	4-64	2-44	2-44	2-44	2-44	2-44				2-44	2-40	2-44	2-40	2-40	2-40	2-40	2-40	2-44
TIME OF IMPROVEMENT (YEARS)	1967	68-71	77-86	1967	77-86	77-86	77-86	77-86	77-86	77-86	1967	77-86				72-76	72-75	77-86	77-86	77-80	77-86	68-71	1967	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(2)				(1)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(2)
ESTIMATED NEEDS IN THOUSANDS																								
RIGHT OF WAY	59	6		94						5	73					46			5	23	2	51	50	
UTILITIES	32	23		35						1	18					17			2	11	1	7	7	
GRADE & DRAINAGE	190	253	77	110	39	34	130	17	1	15	228	12				178			13	121	8	376	579	16
BASE & SURFACE	338	99	66	225	83	47	34	30	2	68	405	29				397	16	7	162	278	38	420	401	7
STRUCTURES					42											29						38		
INCIDENTALS *	17	11	10	11	9	3	3	3		4	22	6				19	1		2	23	3	26	28	1
TOTAL COST **	636	392	173	475	172	80	167	50	1	93	746	47				686	17	7	84	456	52	378	1065	24

* BY GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

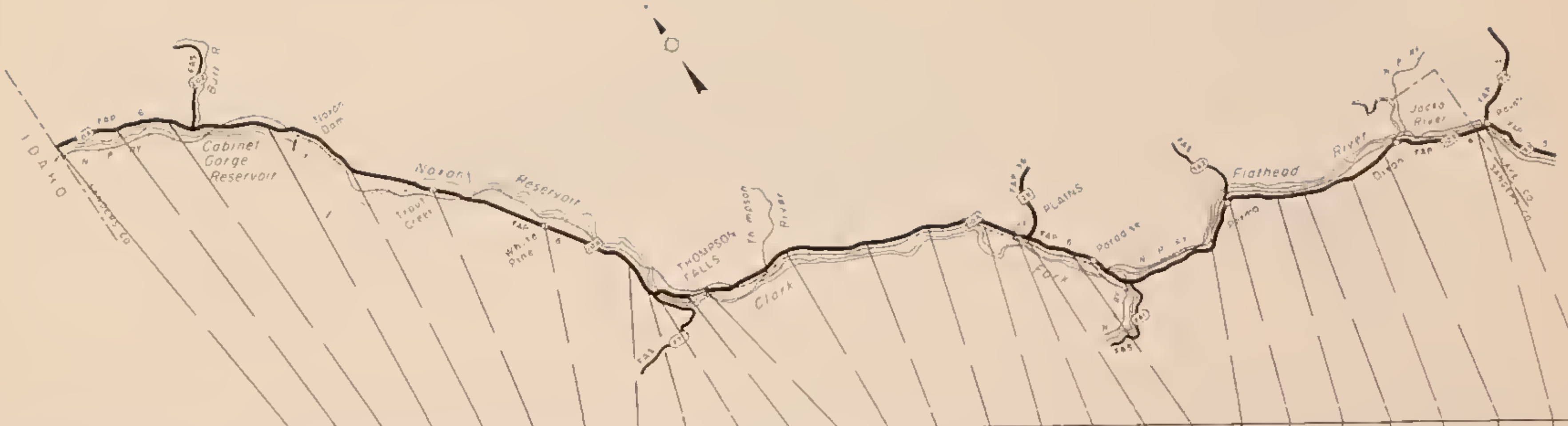
FAP ROUTE 5
SHEET OF 2



ACCUM. ROUTE MILEAGE	93.4	104.1	110.0	111.3	111.C	113.6	114.5	120.3	125.1	12C.7	128.0	134.2	145.1	156.4	159.1	167.8	177.8	179.0	180.5
LENGTH (MILES)	10.7	5.9	1.3	0.3	2.0	0.9	5.8	4.8	1.6	1.3	6.2	10.9	11.3	2.7	8.7	10.0	1.2	1.4	6.5
FINANCIAL DIST.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	R	R	U	U	U	U	R	R	R	U	R	R	R	FR	FR	R	U	R	R
NO. OF LANES	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	38	40	54	68	36	36	36	36	40	24	26	26	26	24	24	30	26	26
SUFFICENCY RATING	8	47	88	88	95	93	93	66	47	82	44	74	93	93	50	41	75	43	67
DESIGN ADT 20 YEAR	3000	6000	7000	7000	9000	3300	3300	3300	5900	6000	2000	1100	1000	1000	1000	1000	2400	2000	600
NO OF LANES & DESIGN WIDTH	2-44	4-80	4-80	4-68		2-44	2-44	2-44	4-90		2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-40	2-36
TIME OF IMPROVEMENT (YEARS)	77-85	68-71	77-86	77-86		77-86	77-86	77-86	68-71		68-71	77-85	77-86	77-86	72-76	68-71	77-86	69-71	77-85
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(2)		(2)	(2)	(2)	(2)		(1)	(2)	(2)	(2)	(1)	(2)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																			
RIGHT OF WAY		40	26	90		18	10	5	32		52	39	45	11	87	64	45	14	25
UTILITIES		12	10	30		6	5	2	10		6	11	11	7	9	10	10	2	6
GRADE & DRAINAGE	147	332	70	19		10	25	35	112		522	174	180	43	810	911	67	59	195
BASE & SURFACE	97	436	90	30		74	124	103	108		494	407	419	100	476	764	102	75	256
STRUCTURES												225		37					
INCIDENTALS ●	16	26	4	1		1	9	8	15		31	75	31	6	41	52	4	4	20
TOTAL COST ●●	260	846	200	170		69	177	153	277		1105	927	886	200	1423	1821	234	154	604

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR ENG'N IS INCLUDED

FAP ROUTE 5
SHEET 2 OF 2

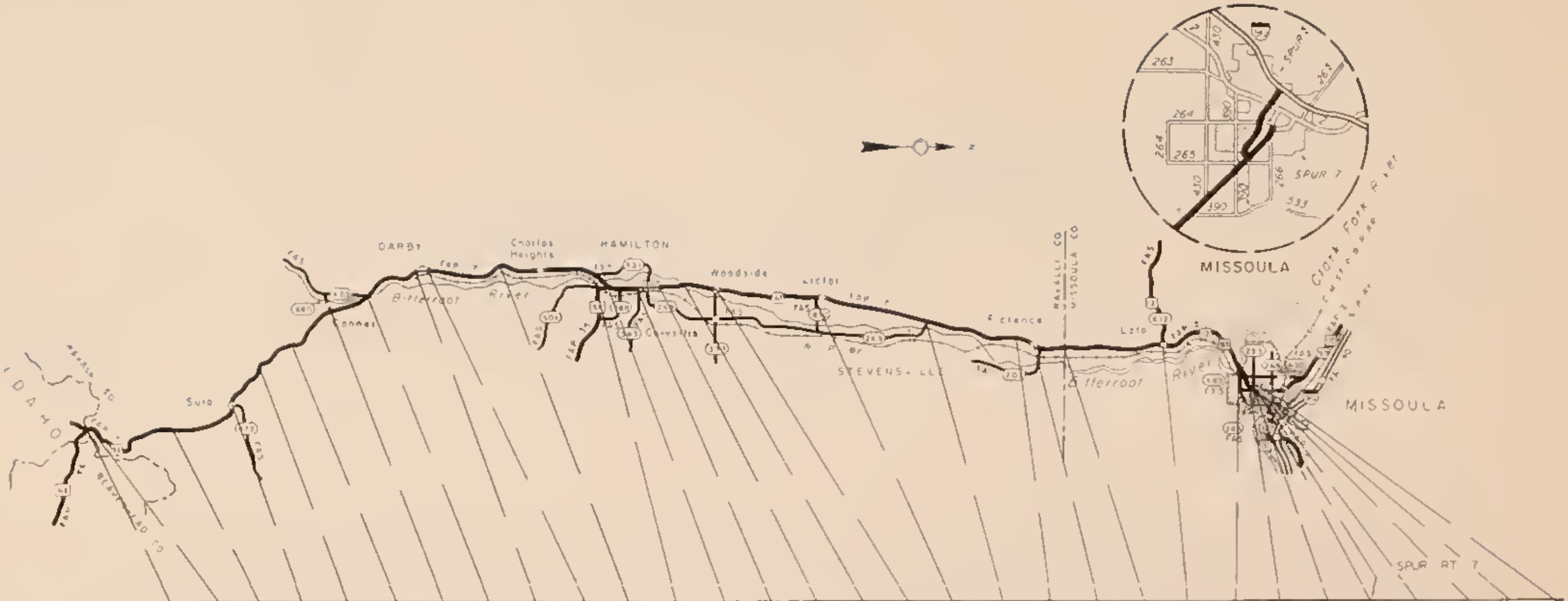


ACCUM. ROUTE MILEAGE	0.0	4.6	8.2	14.7	23.3	29.4	37.7	46.2	47.2	49.1	50.5	51.6	58.1
LENGTH (MILES)	4.6	3.6	6.5	8.6	6.1	8.3	8.5	1.0	1.9	1.4	1.1	6.5	6.9
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8	8	8	8	8
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FU	FR	FR
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	28	30	28	32	32	28	28	32	32	30	40	24	24
SUFFICENCY RATING	70	57	89	84	80	76	72	75	96	63	90	43	52
DESIGN ADT 20 YEAR	900	900	900	1100	1100	1100	1100	1000	1000	1800	4000	1600	1600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	68-71	72-76
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS													
RIGHT OF WAY	20	25	125	126	75	41	50			6	25	60	60
UTILITIES	21	20	30	19	26	35	35				8	18	60
GRADE & DRAINAGE	792	628	407	570	309	359	375	21	13	69	53	286	818
BASE & SURFACE	256	111	383	534	335	435	497	36	16	86	77	398	460
STRUCTURES						114						287	
INCIDENTALS ●	33	23	30	40	25	32	85	2	3	6	7	29	42
TOTAL COST ●●	1131	807	975	1289	770	1016	1042	59	32	165	170	1078	1440

ACCUM. ROUTE MILEAGE	65.0	69.0	72.9	76.0	76.6	79.3	93.1	96.0	99.6	104.9	107.4	109.4	116.5
LENGTH (MILES)	4.0	3.9	2.9	0.6	2.7	13.8	2.9	3.6	2.3	4.5	2.0	7.1	0.9
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8	8	8	8	1
CLASS (RURAL-URBAN-FOREST)	FR	R	R	U	R	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	26	24	40	24	24	24	32	24	22	28	24	24
SUFFICENCY RATING	51	46	42	74	38	46	50	71	52	45	54	48	48
DESIGN ADT 20 YEAR	1600	1600	1600	3500	2100	1200	900	1100	1100	1100	1100	1100	1400
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-44	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	72-76	68-71	68-71	72-76	1967	68-71	72-76	77-86	72-76	68-71	72-76	68-71	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS													
RIGHT OF WAY	32	24	27		20	132	20		20	22	24	99	10
UTILITIES	20	20	19		18	65	10		10	10		48	4
GRADE & DRAINAGE	405	376	87	15	272	1330	283	77	101	203	88	311	42
BASE & SURFACE	280	272	180	20	157	798	195	134	155	299	121	479	59
STRUCTURES			51		11	1195			24	31			165
INCIDENTALS ●	23	22	10	2	34	74	16	10	9	19	8	31	3
TOTAL COST ●●	760	714	374	37	512	3594	524	221	319	584	241	968	283

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

FAP ROUTE NO 6
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.1	7.5	13.5	16.9	20.4	23.5	26.4	30.4	31.1	37.2	43.0	44.5	46.5	47.9
LENGTH (MILES)	0.1	7.4	6.0	3.4	3.5	3.1	2.9	4.0	0.7	6.1	5.8	1.5	2.0	1.4	1.7
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	FR	FR	FR	FR	R	U	R	R	R	R	U	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	26	26	24	26	26	44	24	24	30	24	44	26
SUFFICENCY RATING	71	51	52	52	54	53	44	41	73	43	41	52	25	90	21
DESIGN ADT 20 YEAR	900	900	900	900	1100	1100	1100	2400	3200	2760	2760	2760	4400	6000	4200
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-40	2-44	2-44	2-44
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	72-76	72-76	72-76	72-76	68-71	68-71	72-76	68-71	68-71	72-76	1967	77-86	1967
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY		44	58	24	99	24	35	63	30	72	60	14	100	20	64
UTILITIES			24	9	32	12	32	44	25	47	45	11	44	10	16
GRADE & DRAINAGE	16	1162	440	533	579	302	150	206	45	236	227	44	82	105	70
BASE & SURFACE	6	406	366	186	192	170	195	247	51	377	360	117	157	127	105
STRUCTURES			86	80	80		197	139		105	164		39		348
INCIDENTALS *		51	29	23	23	67	12	17	5	25	23	6	9	7	7
TOTAL COST **	22	1662	1003	850	900	575	621	716	156	912	879	192	431	269	610

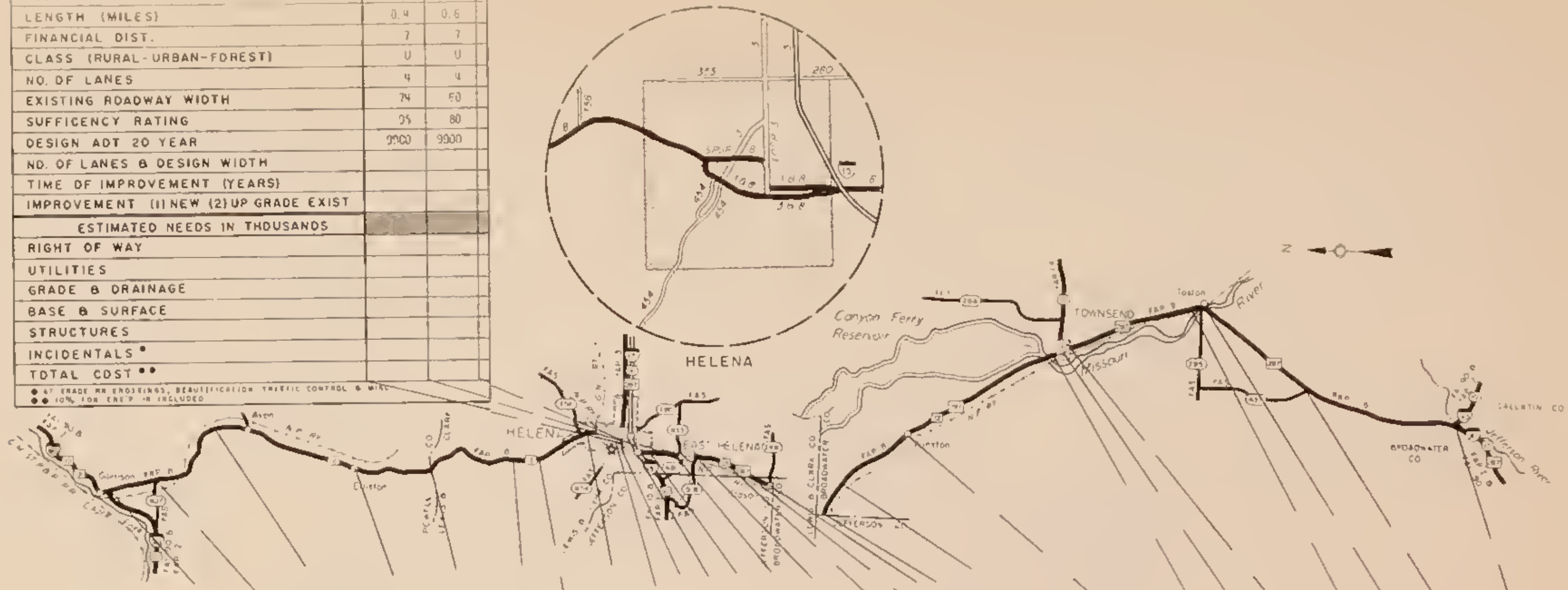
ACCUM. ROUTE MILEAGE	49.6	51.8	58.8	66.5	73.3	74.5	76.5	82.7	90.0	92.0	92.5	94.4	94.6	95.5	95.8
LENGTH (MILES)	2.2	7.0	7.7	6.8	1.2	2.0	6.2	7.3	2.0	0.5	0.5	0.2	0.9	0.3	0.7
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	U	U	U	U	U	U	U
NO. OF LANES	2	2	2	2	2	2	2	4	4	4	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	32	32	32	24	24	24	88	50	50	40	32	40	60	30
SUFFICENCY RATING	62	77	88	83	33	33	17	95	47	47	79	75	75	95	60
DESIGN ADT 20 YEAR	4200	2700	2700	3200	3600	3600	3600	7000	9999	9999	9999	6000	6000	6000	9000
NO. OF LANES & DESIGN WIDTH	2-44	2-40	2-40	2-44	2-44	2-44	2-44		4-88	4-70	2-40	2-44	2-40		2-44
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	1967	1967	1967		1967	1967	68-71	68-71	68-71		68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(2)	(1)	(1)	(1)		(1)	(1)	(2)	(1)	(2)		(2)
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY	26	10			23	43	112		300	150	10	60			35
UTILITIES	14	10			5	10	10		150	150	10	30			20
GRADE & DRAINAGE	44	42	66	40	71	88	320		180	23		15	5		10
BASE & SURFACE	84	278	70	61	70	137	412		306	71	62	17	96		57
STRUCTURES		151	166												200
INCIDENTALS *	6	18	15	62	6	8	27		34	11	10		2		
TOTAL COST **	174	469	317	163	184	282	181		970	405	92	122	103		322

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'G IS INCLUDED

FAP ROUTE NO 7
SHEET 1 OF 1

ACCUM. ROUTE MILEAGE	109.4	109.8
LENGTH (MILES)	0.4	0.6
FINANCIAL DIST.	7	7
CLASS (RURAL-URBAN-FOREST)	U	U
NO. OF LANES	4	4
EXISTING ROADWAY WIDTH	74	60
SUFFICENCY RATING	95	80
DESIGN ADT 20 YEAR	9900	9900
NO. OF LANES & DESIGN WIDTH		
TIME OF IMPROVEMENT (YEARS)		
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		
ESTIMATED NEEDS IN THOUSANDS		
RIGHT OF WAY		
UTILITIES		
GRADE & DRAINAGE		
BASE & SURFACE		
STRUCTURES		
INCIDENTALS ●		
TOTAL COST ●●		

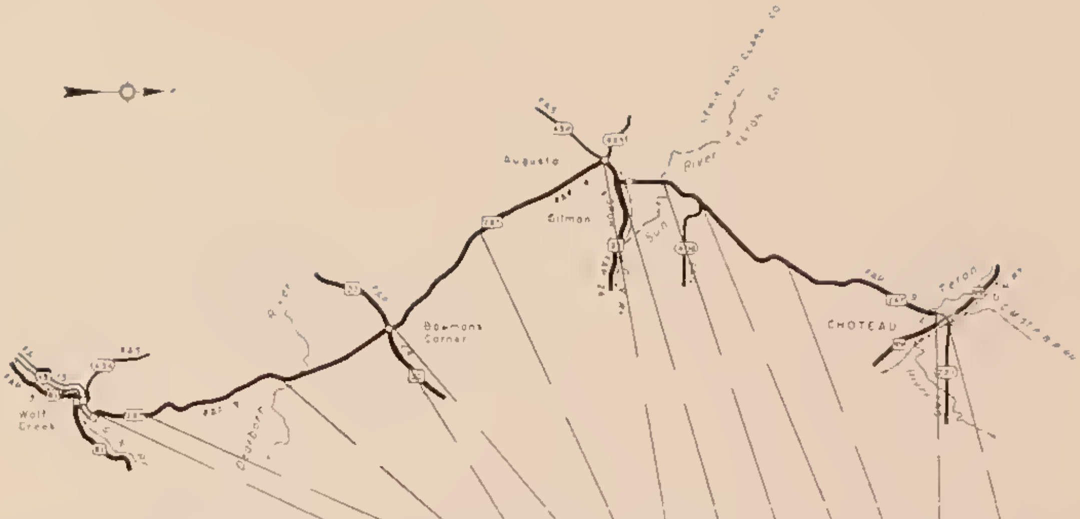
● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED



ACCUM. ROUTE MILEAGE	0.0	3.9	11.3	23.4	27.6	34.2	35.3	39.6	43.0		45.5	46.5	48.6	49.8	53.1	54.5		56.0	58.1	65.4	76.9	77.5	78.0	87.7	88.7	98.9
LENGTH (MILES)	3.9	7.4	12.1	4.2	6.6	1.1	4.3	3.4	0.5		1.0	2.1	1.2	3.3	1.4	1.5		2.1	7.3	11.5	0.6	0.5	9.7	1.0	10.2	10.4
FINANCIAL DIST.	8	8	8	8	7	7	7	7	7		7	7	7	7	7	7		7	7	7	7	7	7	7	7	7
CLASS (RURAL-URBAN-FOREST)	R	R	R	FR	FR	R	R	U	U		U	R	U	R	R	R		R	R	R	U	U	R	R	U	U
NO. OF LANES	2	2	2	2	2	2	2	4	2		4	2	2	2	2	2		2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	32	24	24	24	24	30	84	50		76	30		30	44	44		44	30	32	40	32	32	32	28	28
SUFFICENCY RATING	46	79	47	39	38	46	31	99	82		50	27	65	44	95	95		95	50	95	95	89	74	40	60	77
DESIGN ADT 20 YEAR	2300	2300	2400	2400	2400	2800	2800	9000	9300		8000	8600	2000	3600	3600	3600		2800	2700	2700	4000	3600	2000	2000	2000	1800
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	4-76	4-76	2-44	2-44				4-76	4-76	2-40	2-44					2-40	2-40		2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	68-71	77-86	68-71	1967	1967	68-71	1967				1967	1967	68-71	68-71					72-76	77-86		77-86	77-86	68-71	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(1)	(1)	(1)	(1)	(1)				(2)	(1)	(1)	(1)					(1)	(2)		(2)	(1)	(2)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS										COINCIDENT SEE ROUTE RTE)																
RIGHT OF WAY	16		128	17	36	4	75				25	42	60	43					67			10	58		61	42
UTILITIES	8		12	4	7	1	24				3	4	6	6					8			5	10		10	11
GRADE & DRAINAGE	172	47	415	1348	2942	109	203				24	164	36	154					330	52		15	292	10	307	393
BASE & SURFACE	305	84	948	465	733	72	286				62	294	93	218					571	104		31	598	16	630	642
STRUCTURES			161				69					445	75							412						
INCIDENTALS ●	16	10	46	49	99	5	16				2	13	5	12					29	15		1	32	1	33	35
TOTAL COST ●●	517	141	1710	1883	3817	191	673				116	962	275	433					1005	583		62	990	27	1041	1123

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

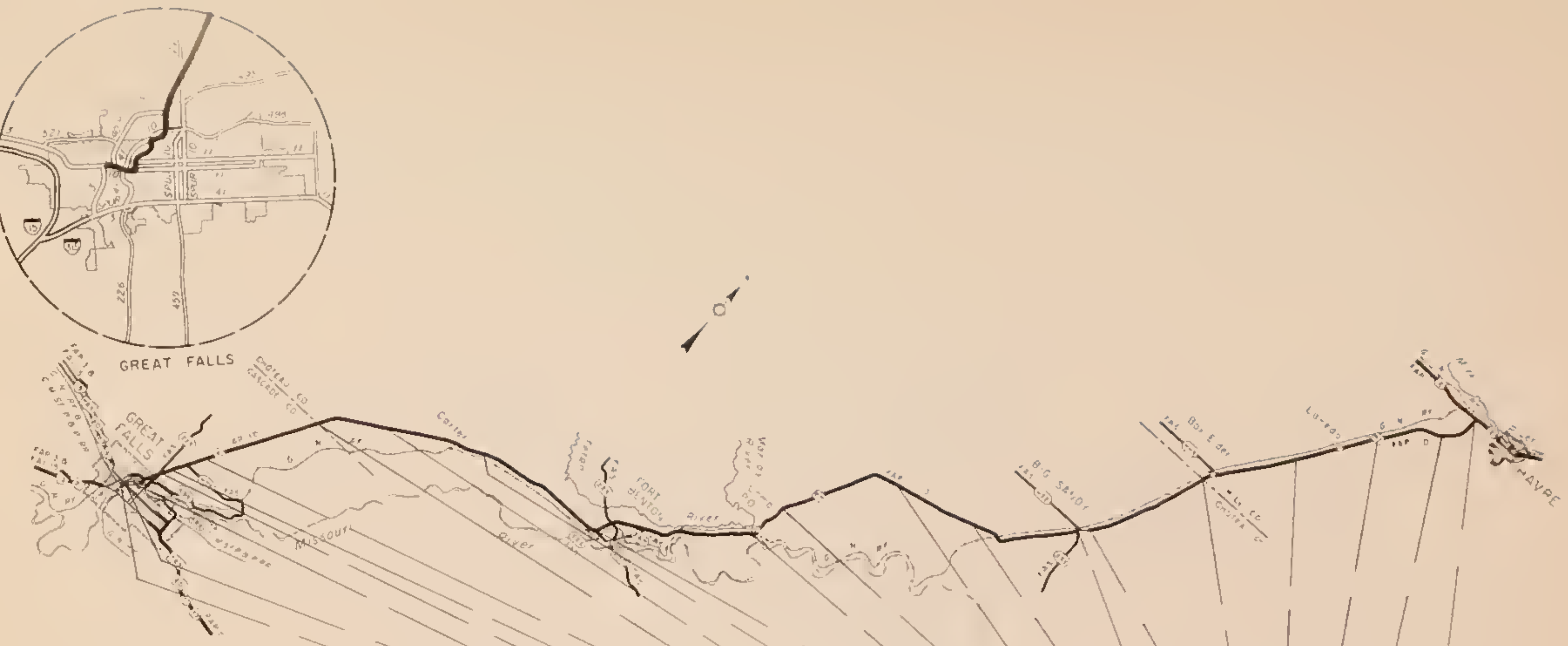
SPUR RTE 8
&
FAP ROUTE 8
SHEET 1 OF 1



ACCUM ROUTE MILEAGE	0.0	2.2	12.7	20.4	21.1	29.7	38.7	40.0	43.2	46.1	53.9	64.0
LENGTH (MILES)	2.2	10.5	7.7	0.7	8.6	9.0	1.3	3.1	2.8	7.8	10.1	0.7
FINANCIAL DIST	7	7	7	7	7	7	7	7	6	6	6	6
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	F	R	R	R	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	32	32	32	22	22	24	24	24	24	24	34
SUFFICENCY RATING	95	97	96	85	55	53	50	57	54	60	57	59
DESIGN ADT 20 YEAR	500	500	500	600	600	600	1200	800	740	600	600	200
NO. OF LANES & DESIGN WIDTH		2-34	2-34	2-34	2-34	2-34	2-40	2-40	2-40	2-34	2-34	2-44
TIME OF IMPROVEMENT (YEARS)		77-86	77-86	77-86	72-76	72-76	72-76	77-86	72-76	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY					37	37	21	13	11	55	40	35
UTILITIES					7	4	10	3	3	8	10	10
GRADE & DRAINAGE		68	50	5	345	397	65	143	107	401	394	55
BASE & SURFACE		225	165	15	410	448	65	178	174	376	486	68
STRUCTURES									317	57	165	
INCIDENTALS ●		26	16	21	32	35	10	14	10	28	36	12
TOTAL COST ●●		319	231	41	830	921	171	351	582	821	1131	180

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

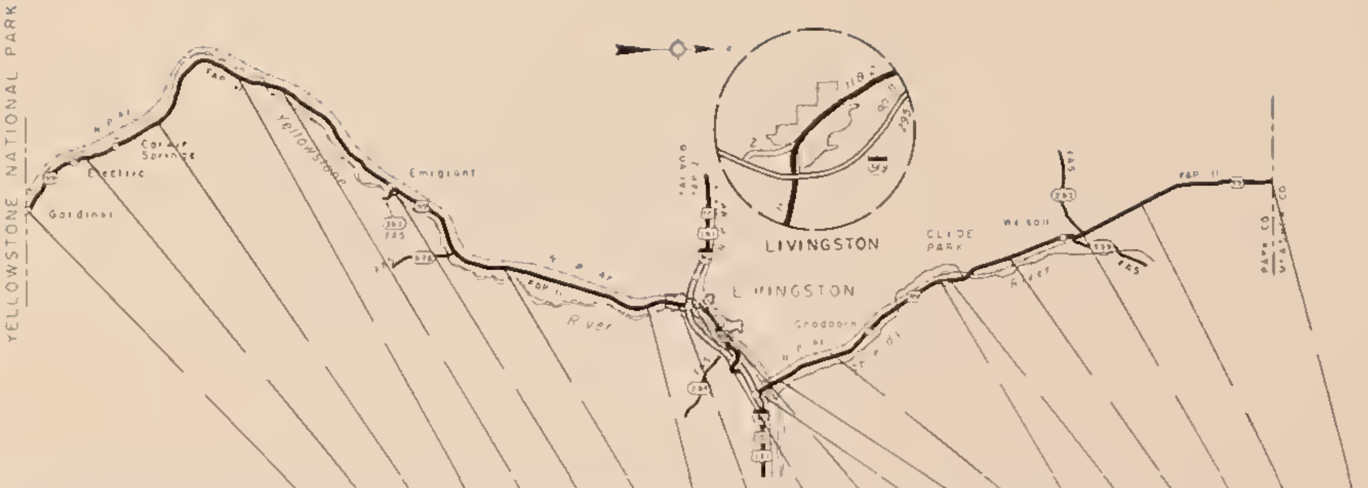
FAP ROUTE NO 9
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.8	1.6	3.3	3.6	6.9	15.9	19.7	29.4	39.2	51.3	54.8	63.6	72.0	78.9	79.5	88.9	96.5	103.4	108.5
LENGTH (MILES)	0.8	0.8	1.7	0.3	3.6	9.0	3.8	9.7	9.8	12.1	3.5	8.8	8.4	6.9	0.6	9.4	7.6	7.1	5.1	1.8
FINANCIAL DIST.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
CLASS (RURAL-URBAN-FOREST)	U	U	U	U	R	R	R	R	R	R	R	R	R	R	U	R	R	R	R	R
NO. OF LANES	4	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	60	40	32	60	32	30	30	32	32	22	24	24	24	24	30	24	24	24	40	31
SUFFICENCY RATING	70	70	70	99	55	69	67	83	57	46	48	52	53	51	60	50	54	50	95	67
DESIGN ADT 20 YEAR			4000	4000	3200	2400	2200	2200	2200	2000	1800	1400	1400	1400	1600	1600	1800	1800	1800	2000
NO. OF LANES & DESIGN WIDTH	4-60	4-64	2-44		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-40		2-40
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	68-71		72-76	77-86	77-86	77-86	77-86	68-71	68-71	72-76	72-76	72-76	72-76	72-76	72-76	72-76		77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)		(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)		(1)
ESTIMATED NEEDS IN THOUSANDS																				
RIGHT OF WAY	80	120	119		4	9	4			36	11	35	34	31	12	38	30	29		
UTILITIES	50	80	17			9	4			12	18	26	25	7	10	28		7		
GRADE & DRAINAGE	80	58	59		23	58	24	63	61	531	154	279	264	208	63	295	228	220		8
BASE & SURFACE	42	43	48		86	114	43	111	112	946	274	483	461	370	51	612	511	490		40
STRUCTURES		300								78	950		70	59		59	47	59		
INCIDENTALS ●	19	7	28		7	18	6	3	4	50	15	32	80	24	5	37	29	27		3
TOTAL COST ●●	271	608	271		120	208	81	177	179	1653	1422	855	934	698	151	1049	845	828		51

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IT INCLUDED

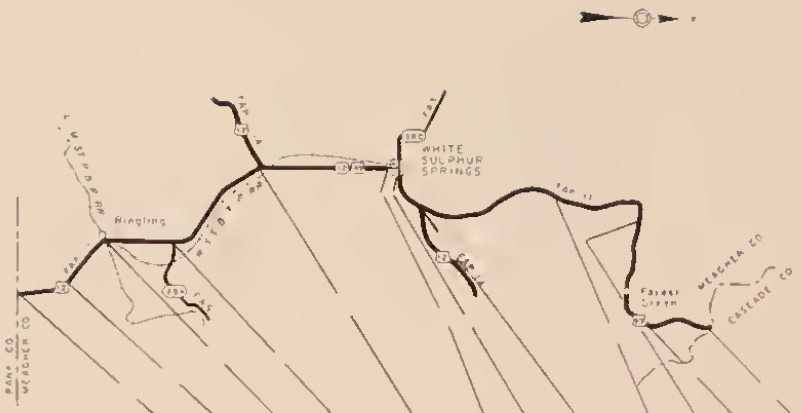
FAP ROUTE NO 10
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	6.0	11.0	16.8	19.5	31.1	40.7	49.9	51.8	53.0		54.1	55.9	58.2	68.4	68.9	74.0	78.3	83.0	
LENGTH (MILES)	6.0	5.0	5.8	2.7	11.6	9.6	9.2	1.9	1.2	1.1		1.8	2.3	10.2	0.5	5.1	4.3	4.7	8.4	
FINANCIAL DIST.	10	10	10	10	10	10	10	10	10	10		10	10	10	10	10	10	10	10	
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	FR	R	R	R	R	U	U		R	R	R	U	R	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	4	4		2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	24	40	32	32	32	32	32	32	66	66		30	26	20	26	26	24	24	24	
SUFFICENCY RATING	42	95	77	98	98	98	95	75	98	98		69	59	55	78	52	45	48	61	
DESIGN ADT 20 YEAR	1000	1000	1000	1000	1000	1000	2100	2100	5000	8000		1400	1400	1400	1400	1100	1100	480	480	
NO. OF LANES & DESIGN WIDTH	2-40		2-40	2-40	2-40	2-40	2-40	2-40				2-40	2-40	2-40	2-46	2-40	2-40	2-34	2-34	
TIME OF IMPROVEMENT (YEARS)	68-71		68-71	77-86	77-86	77-86	77-86	77-86				77-86	77-86	72-76	72-76	72-76	68-71	68-71	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)		(2)	(2)	(2)	(2)	(2)	(2)				(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS																				
RIGHT OF WAY	36										COINCIDENT SEE ROUTE 2		17	65	10	20	17	19	34	
UTILITIES	5												7	11	10	6	5	5	3	
GRADE & DRAINAGE	375		85	16	70	43	74	9				12	69	335	18	154	158	182	324	
BASE & SURFACE	370		217	22	93	78	74	16				27	126	560	33	280	236	227	406	
STRUCTURES	298													111		79				
INCIDENTALS ●	27		16	5	21	16	17	3				3	8	37		29	17	17	31	
TOTAL COST ●●	1111		318	43	184	137	165	28				42	227	1119	71	568	433	450	798	

● RR GRADE [illegible] CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

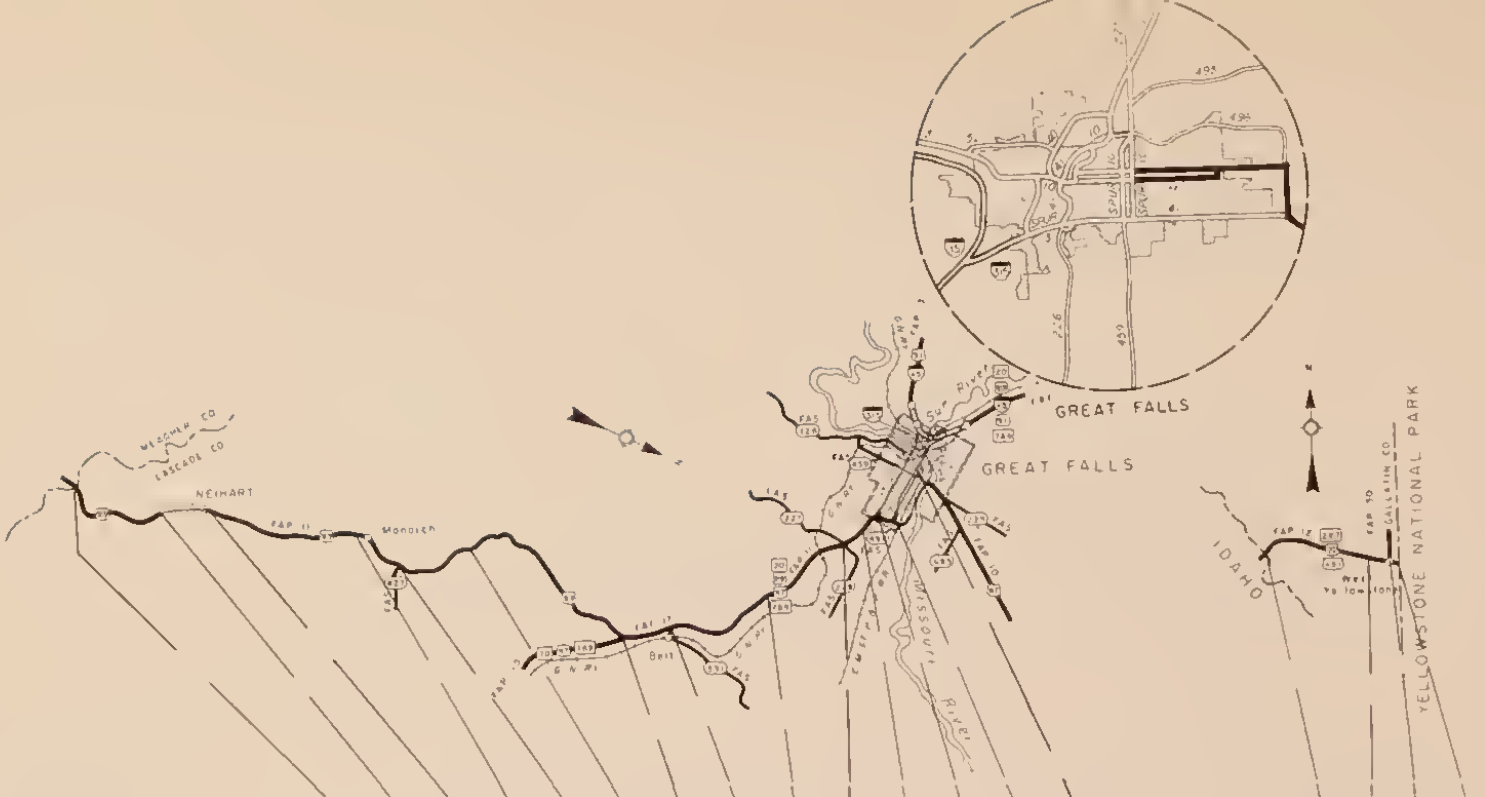
FAP ROUTE NO 11
SHEET 1 OF 3



ACCUM. ROUTE MILEAGE	91.4	94.2	98.8	107.0	111.0	119.2	120.2	122.6	132.1	139.5	147.8
LENGTH (MILES)	2.8	4.6	4.2	8.0	8.2	1.0	2.4	9.5	7.4	8.3	3.3
FINANCIAL DIST.	10	10	10	10	10	10	10	10	10	10	10
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	U	R	R	FR	FR	FR
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	24	24	55	40	28	26	26	28
SUFFICENCY RATING	64	60	59	55	37	98	95	62	80	84	77
DESIGN ADT 20 YEAR	480	480	480	600	2000	4000	2000	700	700	700	700
NO. OF LANES & DESIGN WIDTH	2-36	2-34	2-36	2-36	2-40			2-34	2-34	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	77-80	77-86	77-85	72-76	1967			77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)			(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS											
RIGHT OF WAY	11	18	17	32	33			19	15	8	
UTILITIES	1		1	2	23			10			
GRADE & DRAINAGE	76	195	115	253	269			165	54	79	78
BASE & SURFACE	173	271	259	495	641			211	72	82	33
STRUCTURES		122			40						
INCIDENTALS ●	10	19	16	30	36			22	64	16	
TOTAL COST ●●	271	625	408	812	1042			427	205	185	111

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'G IS INCLUDED

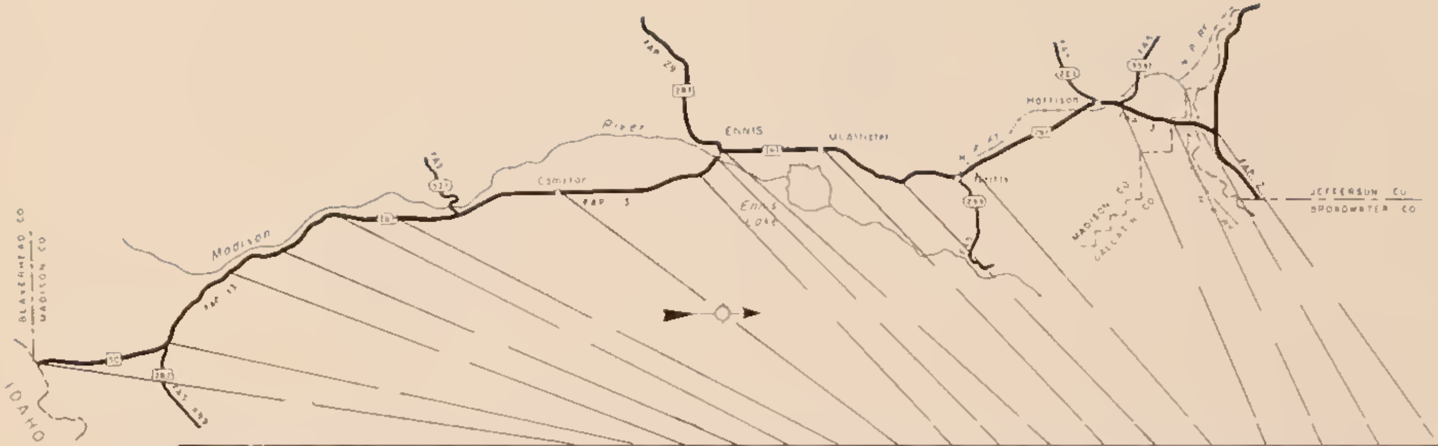
FAP ROUTE NO 11
SHEET 2 OF 3



ACCUM. ROUTE MILEAGE	151.1	158.3	161.5	172.0	176.2	182.7	194.3	198.0	205.0	210.9	212.0	213.9	216.0		0.0	8.0	9.4
LENGTH (MILES)	7.2	3.1	10.5	4.2	6.5	11.6	3.7	7.0	5.9	1.1	1.9	2.1	1.7		8.0	1.4	0.9
FINANCIAL DIST.	6	6	6	6	6	6	6	6	6	6	6	6	6		10	10	10
CLASS (RURAL-URBAN-FOREST)	FR	FU	FR	FR	FR	R	R	R	R	R	U	U	U		FR	R	F
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	4	4		2	2	4
EXISTING ROADWAY WIDTH	30	22	22	22	24	22	32	32	32	32	32	80	34		34	20	60
SUFFICENCY RATING	77	60	71	73	57	46	51	77	50	35	75	82	95		80	28	58
DESIGN ADT 20 YEAR	680	700	800	800	500	800	3000	3800	3800	6000	6000	9000	9000		2200	2200	1800
NO. OF LANES & DESIGN WIDTH	2-34	2-30	2-40	2-40	2-40	2-40	2-44	2-44	2-44	4-98	4-84	4-84	4-44		2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	77-86	72-76	77-86	77-86	77-86	68-71	72-76	77-86	72-76	1967	72-76	77-86	77-86		77-86	1967	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(1)	
ESTIMATED NEEDS IN THOUSANDS																	
RIGHT OF WAY		20	42	13	20	70	8	16	12	22	38	42	170			28	
UTILITIES		10	33	4	7	12	2	4	4	4	10	10	30			10	
GRADE & DRAINAGE	82	38	1764	663	286	524	21	45	49	95	233	250	64		57	50	
BASE & SURFACE	29	152	706	281	438	780	89	167	141	162	206		38		103	85	
STRUCTURES	53		51			129			225								
INCIDENTALS ●	10	5	78	29	28	49	7	15	12	8	15	14	16		16	5	
TOTAL COST ●●	174	225	2674	990	779	1564	130	247	442	291	607	316	318		177	178	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

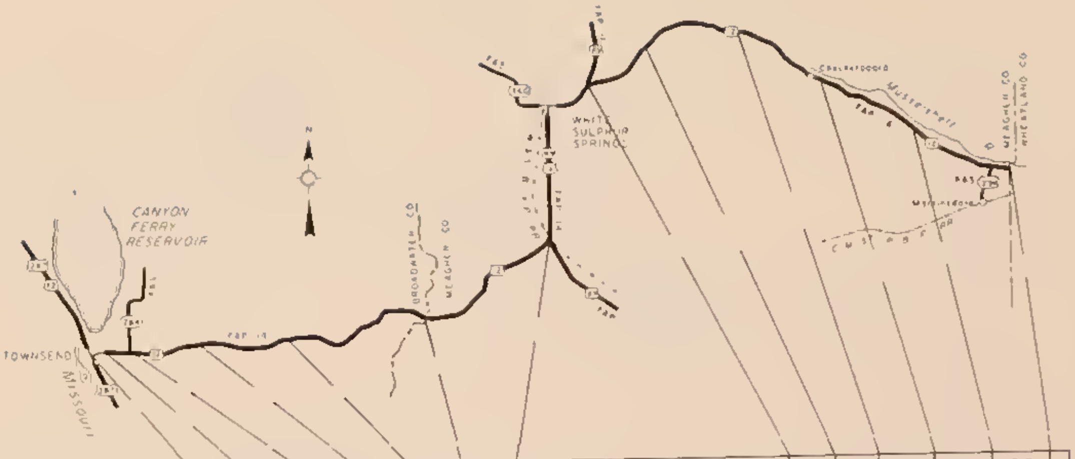
FAP ROUTE NO 11 & 12
SHEET 3 OF 3



ACCUM. ROUTE MILEAGE	0.0	8.8	16.2	18.7	24.5	27.0	37.8	47.1	48.6	49.3	56.5	62.6	67.6	77.1	80.8	83.1
LENGTH (MILES)	8.9	7.4	2.5	5.8	2.5	10.8	9.3	1.5	0.7	7.2	6.1	5.0	9.5	3.7	2.3	0.9
FINANCIAL DIST.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	10	9
CLASS (RURAL-URBAN-FOREST)	FR	R	R	R	R	R	R	R	U	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	34	34	24	24	24	24	24	26	48	24	26	24	24	22	24	24
SUFFICENCY RATING	97	97	46	54	72	58	56	72	75	47	52	52	51	51	63	58
DESIGN ADT 20 YEAR	500	500	700	700	700	700	700	700	2700	1500	1400	1500	900	800	800	800
NO. OF LANES & DESIGN WIDTH			2-34	2-34	2-36	2-36	2-36	2-36	2-48	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)			68-71	72-76	77-86	77-86	77-86	1967	72-76	68-71	72-76	72-76	72-76	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST			(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY			10	23	10	43	37	9	10	29	24	20	33	15	9	4
UTILITIES			2	3	2	2	3	5	10	8		5	9	4	2	
GRADE & DRAINAGE			109	225	68	299	259	72	48	218	679	232	457	162	101	65
BASE & SURFACE			121	381	125	545	470	75	57	444	377	300	430	203	126	75
STRUCTURES						46		239								403
INCIDENTALS *			10	21	9	37	32	6	2	27	35	72	39	15	8	4
TOTAL COST **			252	553	214	972	801	406	127	726	1115	638	982	399	246	551

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

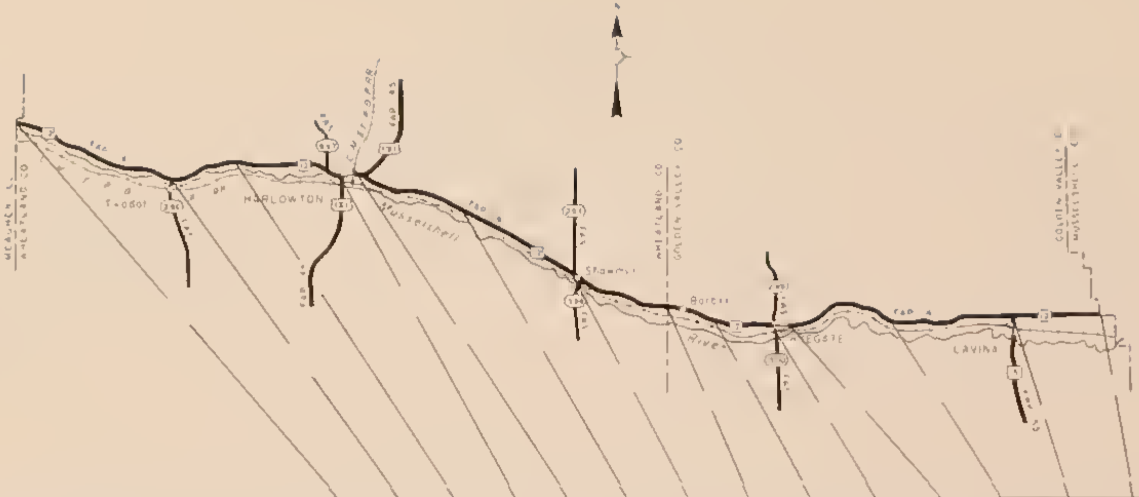
FAP ROUTE NO 13
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.9	2.4	6.4	13.6	23.5				33.5	37.4	44.2	51.6	56.9	
LENGTH (MILES)	0.9	1.5	4.0	7.2	9.9	10.0				3.9	6.8	7.4	5.3	8.7	
FINANCIAL DIST.	7	7	7	7	7	10				10	10	10	10	10	
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	FR	R				R	R	R	R	R	
NO. OF LANES	7	2	2	2	2	2				2	2	2	2	2	
EXISTING ROADWAY WIDTH	60	32	32	26	26	26		SEE ROUTE 11		40	24	28	25	24	
SUFFICENCY RATING	95	99	99	53	52	67				95	56	79	58	54	
DESIGN ADT 20 YEAR	6000	2400	1330	1350	1300	1100				1100	1100	1100	1100	1100	
NO. OF LANES & DESIGN WIDTH		2-40	2-40	2-40	2-40	2-40					2-40	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)		77-86	77-86	72-76	72-76	77-86					77-86	77-86	77-86	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(2)	(1)	(1)	(1)					(1)	(2)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY				29	40	40		COINCIDENT MILEAGE			43		27	90	
UTILITIES				7	2	1					5		1	3	
GRADE & DRAINAGE		10	26	353	1111	461					388	64	560	376	
BASE & SURFACE		14	32	485	660	674					458	201	356	595	
STRUCTURES				63	60								94	58	
INCIDENTALS *		2	5	28	54	38					28	13	28	33	
TOTAL COST **		26	63	965	1937	1214					922	278	1066	1155	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

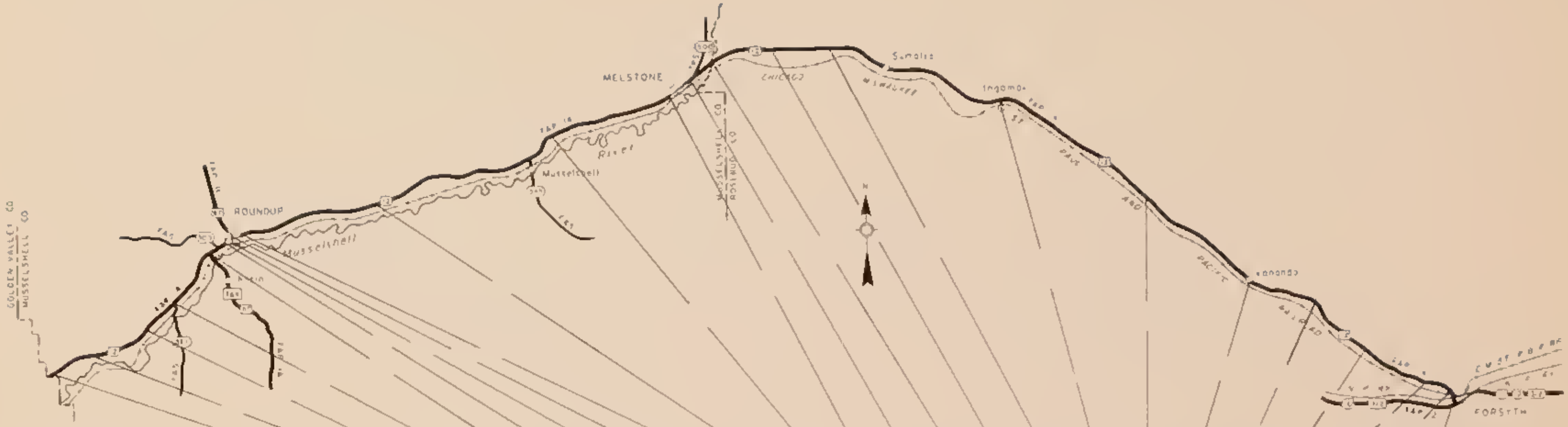
FAP ROUTE NO 14
SHEET 1 OF 3



ACCUM. ROUTE MILEAGE	65.6	76.4	81.2	87.7	88.7	96.4	104.8	110.9	113.3	117.9	118.9	125.4	134.4	
LENGTH (MILES)	10.8	4.8	6.5	1.0	7.6	8.4	6.1	2.4	4.6	1.0	6.5	9.1	5.6	
FINANCIAL DIST.	10	10	10	10	10	10	10	11	11	11	11	11	11	
CLASS (RURAL-URBAN-FOREST)	R	R	R	U	R	R	R	R	R	U	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	22	40	40	48	40	28	40	40	30	30	24	24	24	
SUFFICENCY RATING	52	95	95	95	95	74	95	95	75	73	46	46	56	
DESIGN ADT 20 YEAR	1100	1800	1800	3000	2400	1800	1700	1600	1700	2000	1800	1800	700	
NO OF LANES & DESIGN WIDTH	2-40					2-40			2-40	2-40	2-40	2-40	2-34	
TIME OF IMPROVEMENT (YEARS)	72-76					77-86			77-86	77-86	68-71	68-71	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)					(2)			(1)	(2)	(1)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY	59								18		40	44	22	
UTILITIES	1								5		17	1	0	
GRADE & DRAINAGE	381					37			133	7	446	312	245	
BASE & SURFACE	727					201			359	19	646	712	331	
STRUCTURES	35										70	72		
INCIDENTALS ●	79					10			17		34	40	20	
TOTAL COST ●●	1242					252			528	22	1255	1189	622	

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

FAP ROUTE NO 14
SHEET 2 OF 3

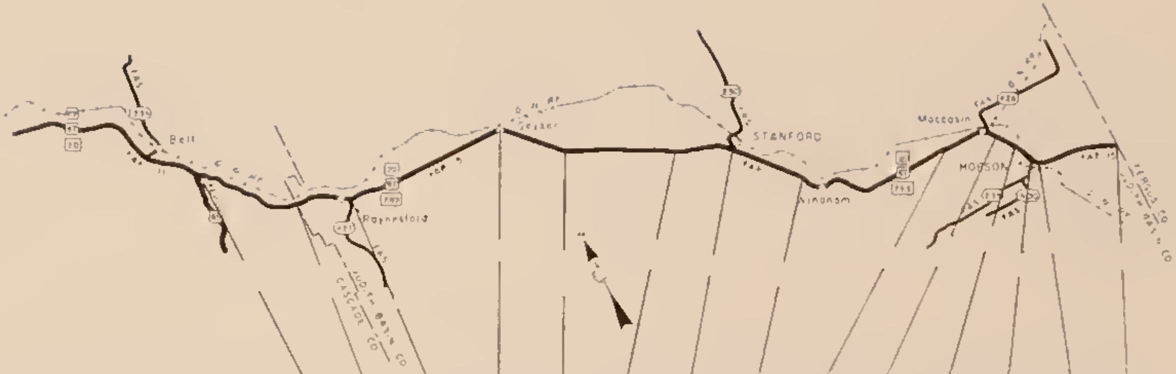


ACCUM. ROUTE MILEAGE	140.0	147.4	148.7	150.9	155.8	156.8	157.2	157.8	158.5	170.4	183.8	192.1
LENGTH (MILES)	3.4	5.3	2.2	4.9	1.0	0.4	0.6	0.7	11.9	13.4	6.3	1.5
FINANCIAL DIST.	11	11	11	11	11	11	11	11	11	11	11	11
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	U	U	U	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	30	24	24	30	40	66	36	24	24	24	26
SUFFICENCY RATING	56	79	55	51	37	65	85	81	55	55	60	70
DESIGN ADT 20 YEAR	700	700	700	1100	3800	4000	8000	1800	1200	1200	1200	1400
NO. OF LANES & DESIGN WIDTH	2-34	2-34	2-36	2-40	2-44	2-44		2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	72-76	72-76	1987	68-71		77-86	72-76	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(1)	(1)	(1)	(2)		(2)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY	19		26	51	20	20		20	198	117	33	10
UTILITIES	4		6	45	12	30		10	60	6	5	2
GRADE & DRAINAGE	130	17	72	293	32	15		20	414	671	283	34
BASE & SURFACE	201	92	136	370	87	34		52	801	901	559	66
STRUCTURES	40			39					47	47		
INCIDENTALS ●	11	5	7	20	4				92	53	29	2
TOTAL COST ●●	409	114	297	778	151	79		102	1612	1731	909	114

ACCUM. ROUTE MILEAGE	193.6	195.6	200.9	205.6	219.0	230.9	240.8	248.0	253.4	257.1	258.9
LENGTH (MILES)	2.0	5.3	4.7	12.4	12.0	9.9	7.2	5.4	3.7	1.8	0.3
FINANCIAL DIST.	11	12	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	R	R	R	F	F	R	R	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	26	24	36	22	26	26	26	32	32	32
SUFFICENCY RATING	56	56	56	58	56	59	64	65	79	70	77
DESIGN ADT 20 YEAR	1100	1100	700	700	700	600	600	800	800	900	1600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-36	2-36	2-36	2-36	2-34	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS											
RIGHT OF WAY	8	21	19	49	52	40	14	22			
UTILITIES	2	1		1	4	1	1				
GRADE & DRAINAGE	74	186	193	420	458	325	213	190	16	12	2
BASE & SURFACE	134	358	290	765	799	612	446	362	144	70	12
STRUCTURES	185	50				62	94				
INCIDENTALS ●	7	18	17	42	44	93	27	19	8	4	
TOTAL COST ●●	410	647	525	1277	1357	1122	791	597	168	86	14

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR. IS INCLUDED

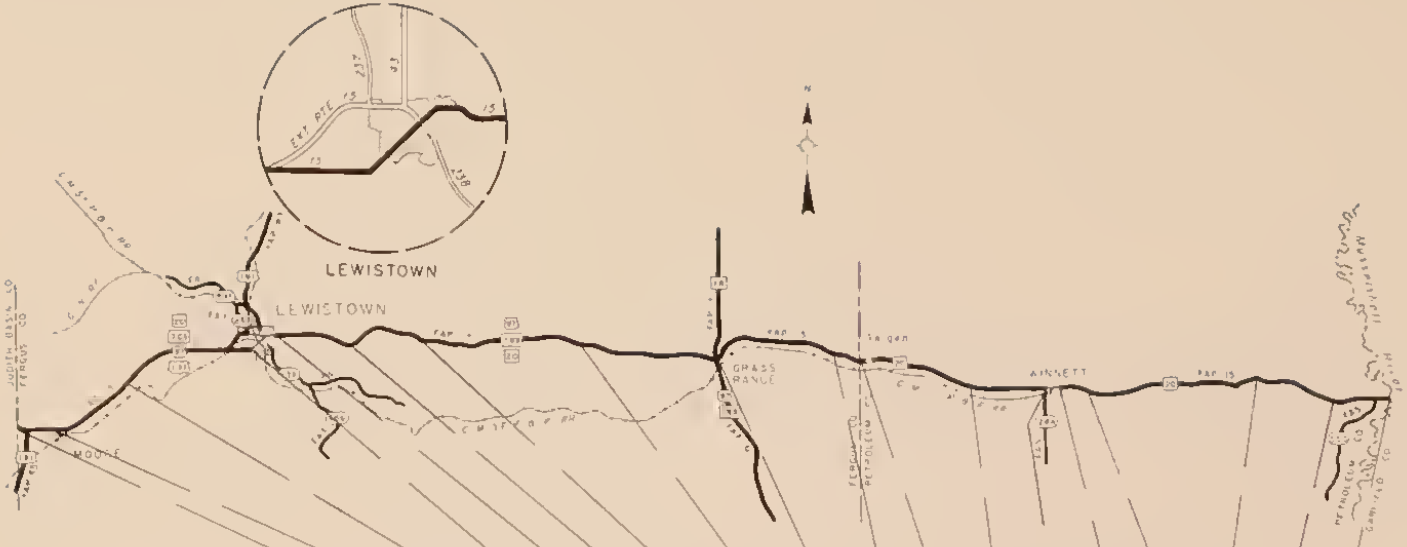
FAP ROUTE NO 4
SHEET 3 OF 3



ACCUM. ROUTE MILEAGE	0.0	7.1	10.4	21.9	26.6	33.2	36.6	41.8	54.2	56.5	57.6	58.5	58.7
LENGTH (MILES)	7.1	3.3	11.5	4.7	6.6	3.4	5.2	12.4	2.3	1.1	0.9	0.2	5.5
FINANCIAL DIST.	6	6	6	6	6	6	6	6	6	6	6	6	6
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R	R	U	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	32	32	32	24	24	30	32	24	24	32	24	24	24
SUFFICENCY RATING	76	77	99	52	46	43	48	45	41	65	45	45	45
DESIGN ADT 20 YEAR	2700	2700	2400	2400	2400	2400	2400	2400	2100	2400	2400	2400	2400
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	72-76	68-71	68-71	68-71	68-71	68-71	68-71	68-71	68-71	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS													
RIGHT OF WAY				14	20	10	16	37	7		4	1	17
UTILITIES				5	7	2	5	12	2		1		6
GRADE & DRAINAGE	45	21	73	206	307	162	263	588	68	5	39	4	178
BASE & SURFACE	80	37	131	367	516	265	406	969	173	13	67	11	428
STRUCTURES	327	84								76	79		74
INCIDENTALS *	14	6	22	21	30	15	24	57	9	2	3		23
TOTAL COST **	466	148	226	613	880	455	714	1663	265	96	193	16	726

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC.
** 10% FOR SHOA IS INCLUDED

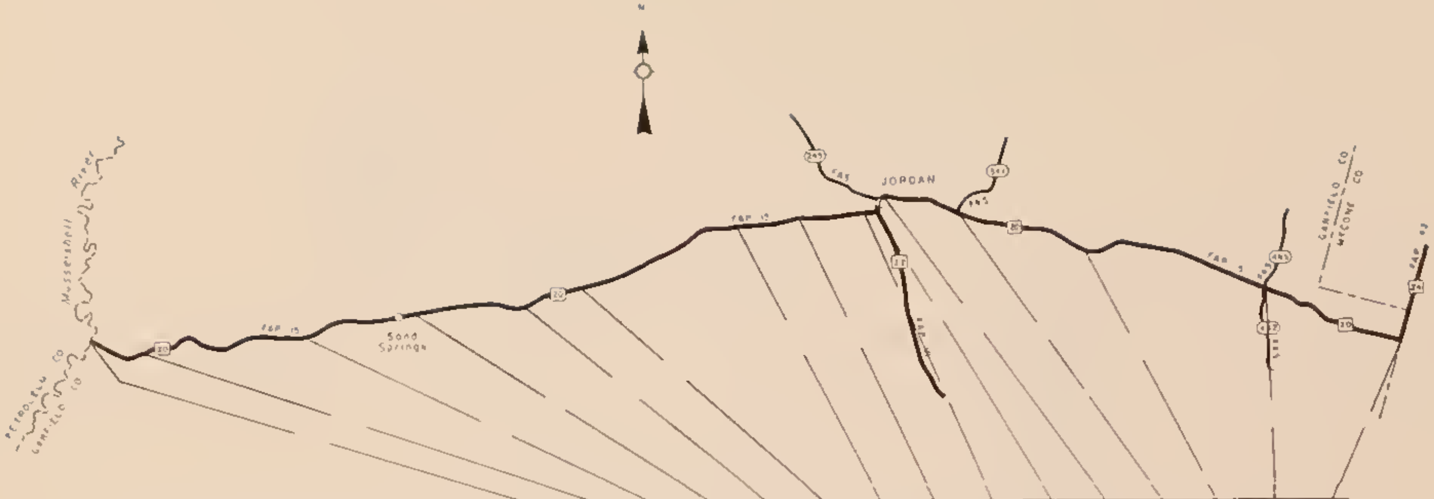
FAP ROUTE NO 15
SHEET 1 OF 4



ACCUM. ROUTE MILEAGE	64.2	66.8	76.7	80.9	83.0	88.2	93.2	103.1	112.7	121.4	122.9	130.7	135.2	136.1	137.2	148.2	156.2
LENGTH (MILES)	2.6	6.5	7.6	2.1	5.1	5.1	9.9	9.6	8.7	1.5	7.8	4.5	0.9	1.1	11.0	8.0	1.6
FINANCIAL DIST	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CLASS (RURAL-URBAN-FOREST)	R	R	R	U	R	R	R	R	R	R	R	R	U	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	32	32	52	30	30	30	32	26	22	22	22	22	22	26	26	24
SUFFICENCY RATING	30	69	62	95	57	57	52	56	58	61	58	57	70	73	74	58	57
DESIGN ADT 20 YEAR	2600	2600	2600	9000	1400	1400	1400	1400	600	600	600	600	700	600	600	600	600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40		2-40	2-40	2-40	2-40	2-34	2-34	2-36	2-34	2-34	2-34	2-36	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	1967	77-86	77-86		77-86	72-76	72-76	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)	(2)		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(1)
ESTIMATED NEEDS IN THOUSANDS																	
RIGHT OF WAY	10				20	20	40	70	75	6	31	18	4	4			6
UTILITIES	10				4	11	10	21	41	3	4	2	1	1			2
GRADE & DRAINAGE	78	64	45		124	405	449	521	359	57	218	174	35	42	73	64	73
BASE & SURFACE	203	181	198		141	432	666	646	513	89	482	266	53	65	209	198	94
STRUCTURES		35	163					97	105								216
INCIDENTALS ●	9	16	15		15	79	43	43	35	5	30	18	2	4	26	18	6
TOTAL COST ●●	310	296	421		304	947	1209	1401	1129	160	765	478	95	116	298	280	397

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

FAP ROUTE NO 15
SHEET 2 OF 4

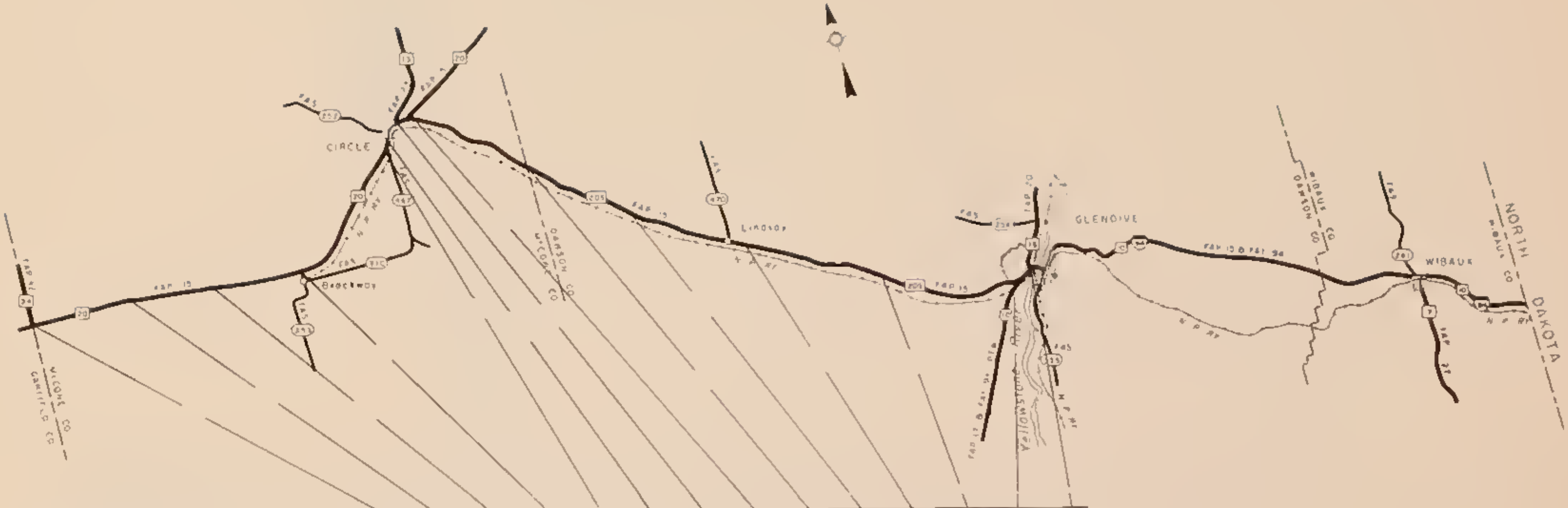


ACCUM. ROUTE MILEAGE	157.8	160.9	171.4	179.6	187.8	191.4	202.7	205.9	211.2	211.5	212.1	217.1	225.8	238.0	
LENGTH (MILES)	3.1	10.5	8.2	8.2	3.6	11.3	2.2	5.3	0.3	0.6	5.0	8.7	12.2	9.8	
FINANCIAL DIST	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	U	R	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	24	24	24	24	24	24	24	24	24	40	26	26	26	26	
SUFFICENCY RATING	54	55	56	58	58	62	57	48	45	80	57	58	59	59	
DESIGN ADT 20 YEAR	500	500	500	500	500	500	500	500	1200	1600	700	700	700	500	
NO. OF LANES & DESIGN WIDTH	2-36	2-36	2-34	2-34	2-34	2-34	2-34	2-34	2-40	2-44	2-34	2-34	2-34	2-34	
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	77-86	77-86	77-86	77-86	77-86	68-71	68-71	77-86	77-86	77-86	77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY	12	42	33	77	14	45	53	21	1	21	20	75	49	39	
UTILITIES	1	3	2	2	1	1	1	1		10		1	4	2	
GRADE & DRAINAGE	125	463	335	316	138	436	146	204	13	35	210	364	509	177	
BASE & SURFACE	195	641	484	484	212	678	188	313	20	51	295	513	722	579	
STRUCTURES	60	30	70	130	90	370		215	80			196	167	250	
INCIDENTALS *	11	43	32	92	14	44	13	21			21	35	47	37	
TOTAL COST **	403	1222	916	1047	460	1574	361	775	114	117	552	1144	1499	1264	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

** 10% FOR ENG'G IS INCLUDED

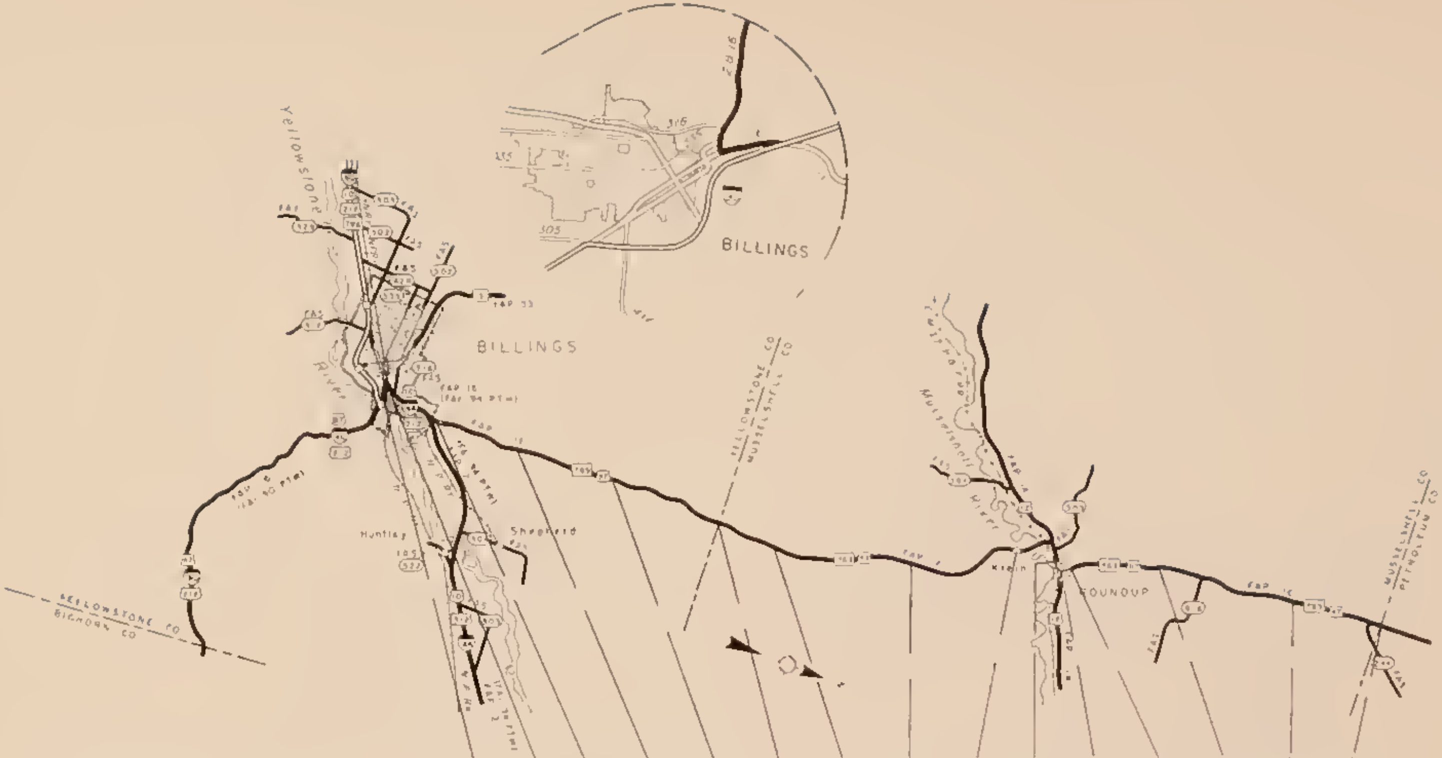
FAP ROUTE NO 15
SHEET 3 OF 4



ACCUM. ROUTE MILEAGE	247.8	255.8	261.7	266 9	277.8	278.1	279 3	280 2	289.3	301.6	306 1	316 3	324 3	
LENGTH (MILES)	8.0	5.9	5.2	10.9	0 3	1.1	1.0	9 1	7.1	9.7	10.2	8 0	1 1	
FINANCIAL DIST.	4	4	4	4	4	4	4	4	4	4	15	4	4	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	U	U	R	R	R	R	R	R	U	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	4	
EXISTING ROADWAY WIDTH	26	26	26	26	24	44	32	32	32	24	32	32	40	
SUFFICENCY RATING	57	57	62	57	57	95	95	95	99	54	95	81	95	
DESIGN ADT 20 YEAR	500	500	500	900	1600	3200	1600	900	900	800	1400	1460	1400	
NO. OF LANES & DESIGN WIDTH	2-34	2-34	2-34	2-40	2-40		2-40	2-40	2-40	2-40	2-40	2-40		
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86		77-86	77-86	77-86	72-76	77-86	77-86		
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)		(2)	(2)	(2)	(1)	(2)	(2)		
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY	32	24	21	44	6					39				
UTILITIES			1	1	2					11				
GRADE & DRAINAGE	357	227	213	510	13		6	59	46	411	45	35		
BASE & SURFACE	374	348	307	735	20		7	101	70	654	100	78		
STRUCTURES	130	59		105			155							
INCIDENTALS •	30	23	21	57	1		2	64	11	41	16	12		
TOTAL COST ••	923	681	563	1452	42		170	224	127	1156	161	125		

• AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
•• 10% FOR ENGR IS INCLUDED

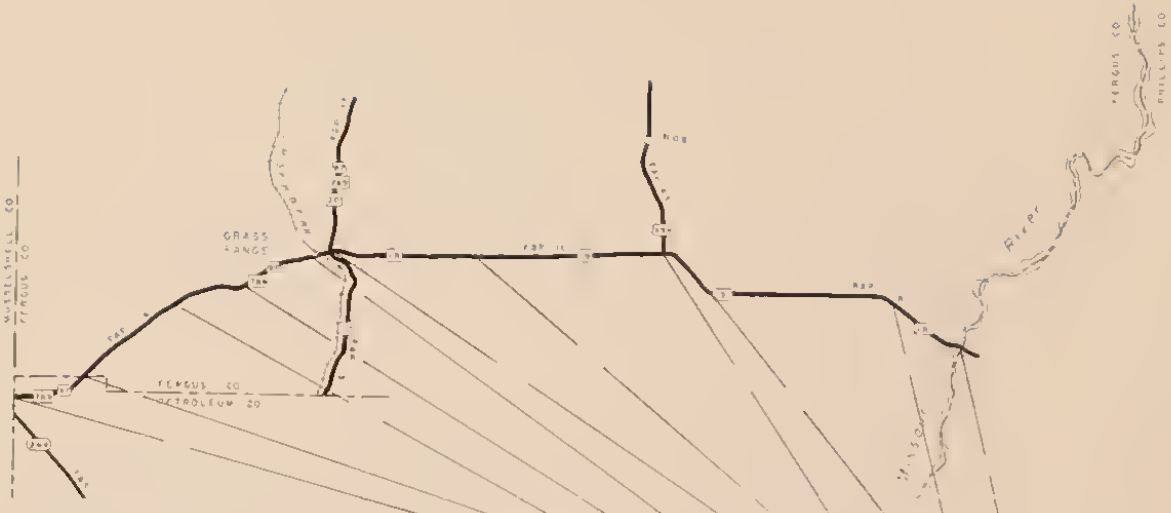
FAP ROUTE NO 15
SHEET 4 OF 4



ACCUM. ROUTE MILEAGE		104.0		108.8	113.8	120.9	129.1	132.6	141.1	149.9	154.0	154.2	154.7	160.7	169.7	
LENGTH (MILES)		1.3		5.0	7.1	8.2	4.5	8.5	8.0	1.8	0.2	0.5	6.0	9.0	5.8	
FINANCIAL DIST.		11		11	11	11	11	11	11	11	11	11	11	11	11	
CLASS (RURAL-URBAN-FOREST)	WYOMING LINE TO BILLINGS	U		R	R	R	R	R	R	R	U	U	R	R	R	
NO. OF LANES		2		2	2	2	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH		24		24	24	24	24	32	32	24	60	36	30	24	24	
SUFFICENCY RATING		52		47	50	50	48	95	81	29	76	92	47	47	51	
DESIGN ADT 20 YEAR				1600	1600	1600	1600	1400	1400	2800	4000	4000	1500	1500	1200	
NO. OF LANES & DESIGN WIDTH		4-76	ROUTE 2	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-70	2-44	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)		72-76		68-71	68-71	68-71	68-71	77-86	77-86	1967	77-86	77-86	68-71	68-71	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(1)		(1)	(1)	(1)	(1)	(2)	(2)	(1)	(2)	(2)	(2)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY	COM'D DEPT WITH I 90	20		40	25	33	18			45		25		36	29	
UTILITIES		50	COM'D DEPT WITH	1	1	1	1			2		10		2	2	
GRADE & DRAINAGE		60		218	325	482	250	200	188	153		37	53	470	190	
BASE & SURFACE		125		391	556	642	350	92	86	152	12	60	246	605	367	
STRUCTURES		2000		24	78	35	35			197				59		
INCIDENTALS ●		11		23	33	40	22	13	8	11	6	4	16	40	23	
TOTAL COST ●●		2266		701	1018	1233	685	305	282	560	18	136	315	1181	625	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'G IS INCLUDED

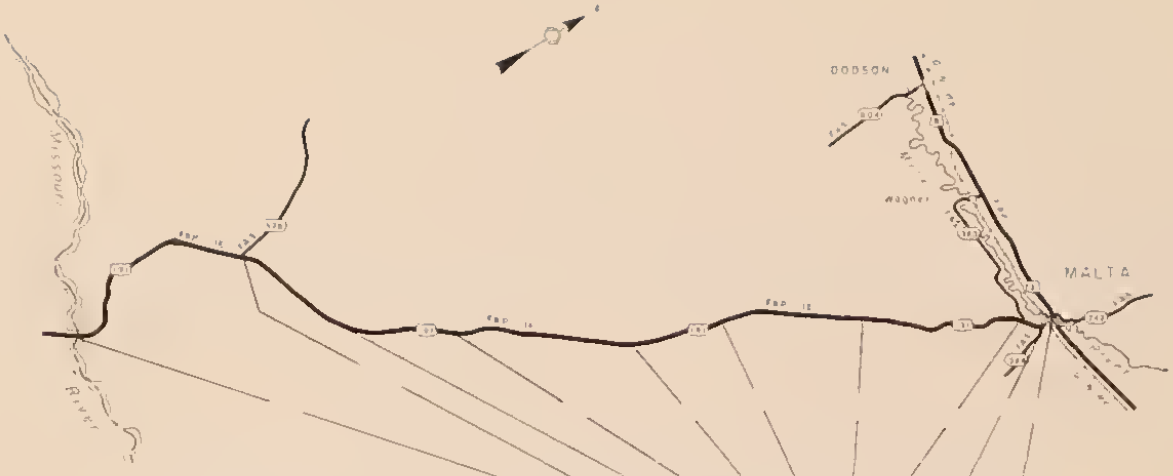
FAP ROUTE NO 16
SHEET 1 OF 3



ACCUM ROUTE MILEAGE	175.5	180.2	187.4	192.3	197.2	198.8	208.5	220.3	224.2	237.2
LENGTH (MILES)	4.7	7.2	4.9	4.9	1.6	9.7	11.8	3.9	13.0	4.6
FINANCIAL DIST.	5	5	5	5	5	5	5	5	5	5
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R
NO OF LANES	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	30	30	28	28	22	30	30	30	30	30
SUFFICENCY RATING	82	82	78	59	79	80	91	84	90	75
DESIGN ADT 20 YEAR	800	800	800	800	800	400	400	400	400	400
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40				2-30	2-30
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86				77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(1)	(2)				(2)	(2)
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY				20						
UTILITIES				2						
GRADE & DRAINAGE	24	52	78	249	7					
BASE & SURFACE	57	89	120	330	16				170	62
STRUCTURES			6							
INCIDENTALS *	7	2	7	21	2				20	7
TOTAL COST **	88	143	211	622	25				199	69

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

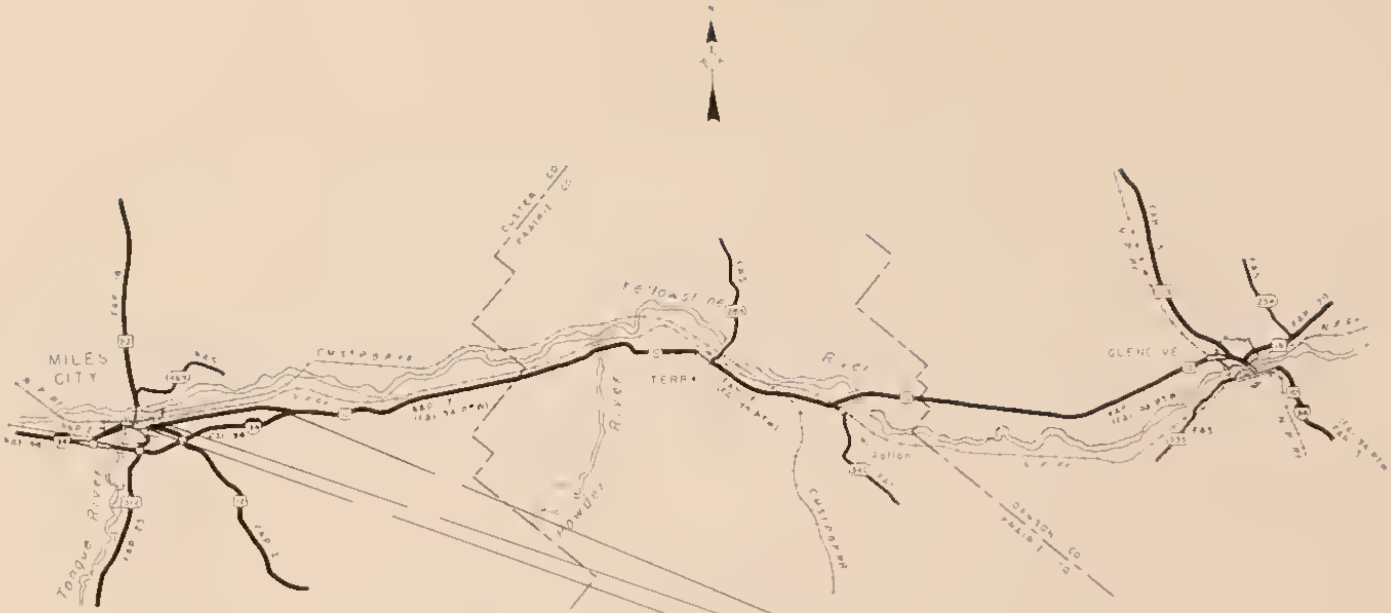
FAP ROUTE No. 5
SHEET 2 OF 3



ACCUM ROUTE MILEAGE	241.8	256.2	264.3	272.1	284.3	290.7	301.3	309.6	310.9	
LENGTH (MILES)	14.4	8.1	7.8	12.2	6.4	10.6	8.3	1.3	0.6	
FINANCIAL DIST.	3	3	3	3	3	3	3	3	3	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	U	
NO. OF LANES	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	30	30	30	24	24	24	20	26	48	
SUFFICENCY RATING	77	88	81	64	63	59	69	51	87	
DESIGN ADT 20 YEAR	400	300	300	300	500	500	500	500	4000	
NO. OF LANES & DESIGN WIDTH	2-30	2-30	2-30	2-30	2-34	2-34	2-34	2-34	2-44	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86	72-76	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(2)	
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY				49	26	42	33	5		
UTILITIES				54	28	47	36	6		
GRADE & DRAINAGE	78	101	98	445	166	416	303	16	16	
BASE & SURFACE	156			657	345	571	447	70	60	
STRUCTURES				128	135	102	165	53		
INCIDENTALS *	31	12	12	45	23	43	31	5	4	
TOTAL COST **	265	113	110	1378	723	1221	1015	155	80	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR. IS INCLUDED

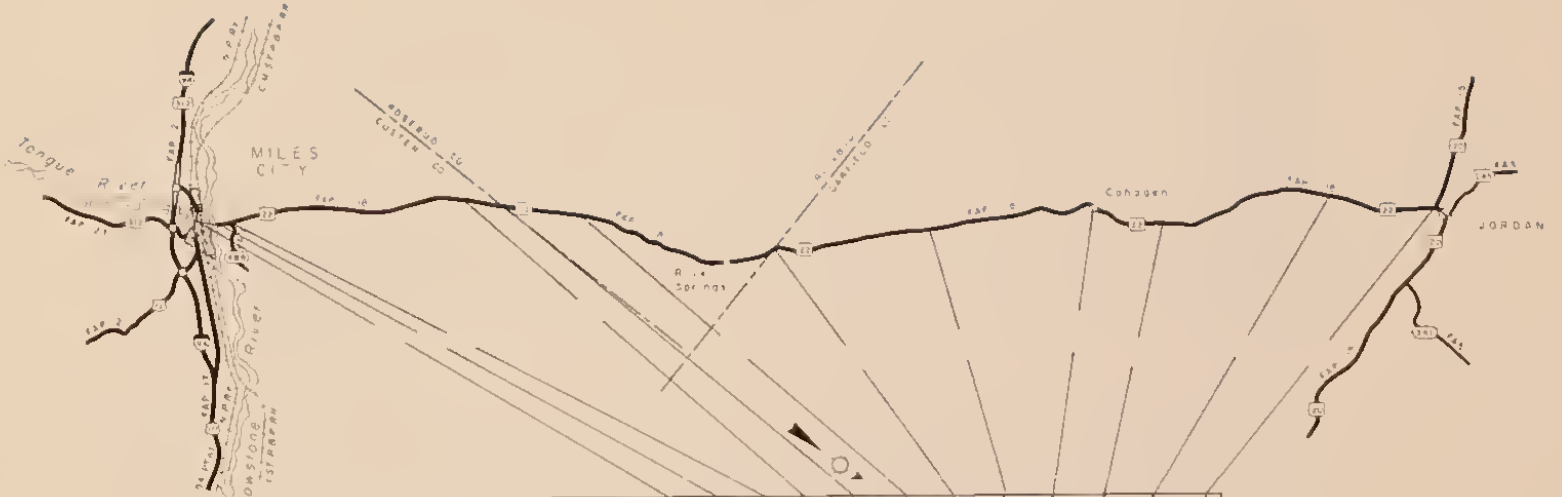
FAP ROUTE NO 16
SHEET 3 OF 3



ACCUM. ROUTE MILEAGE	0.0	0.4		
LENGTH (MILES)	0.4	8.3		
FINANCIAL DIST	12	12		
CLASS (RURAL-URBAN-FOREST)	U	2		
NO. OF LANES	2	2		
EXISTING ROADWAY WIDTH	30	30		
SUFFICENCY RATING	70	70		
DESIGN ADT 20 YEAR	400	400		
NO. OF LANES & DESIGN WIDTH				
TIME OF IMPROVEMENT (YEARS)				
IMPROVEMENT (1) NEW (2) UP GRADE EXIST				
ESTIMATED NEEDS IN THOUSANDS				
RIGHT OF WAY			COINCIDENT WITH I-94	
UTILITIES				
GRADE & DRAINAGE				
BASE & SURFACE				
STRUCTURES				
INCIDENTALS *				
TOTAL COST **				

* AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

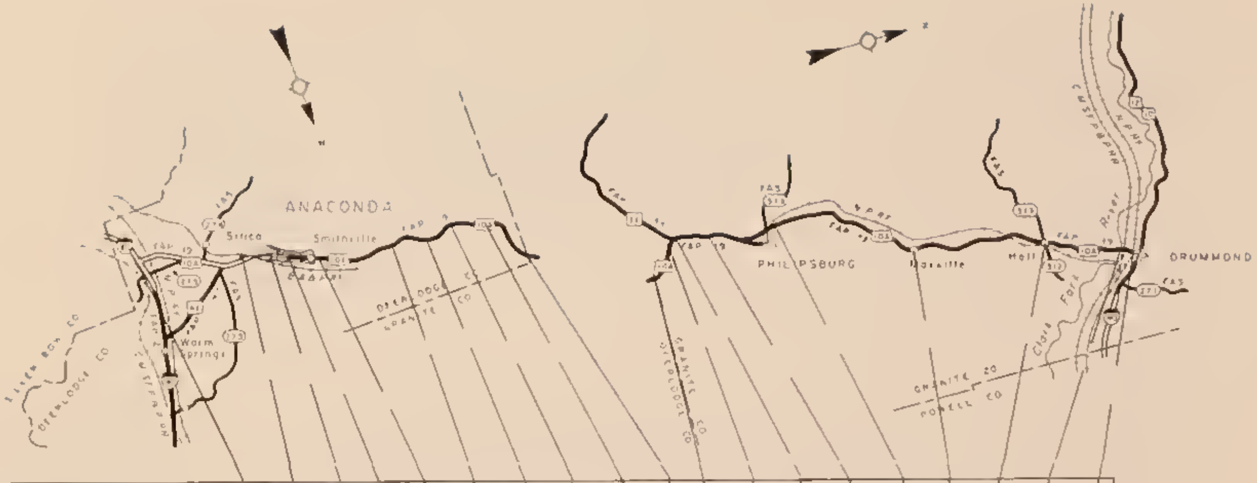
FAP ROUTE NO 17
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	1.0	2.2	18.1	20.1	24.0	38.1	48.5	59.0	63.3	73.7	
LENGTH (MILES)	1.0	1.2	15.9	2.0	3.9	14.1	10.4	10.5	4.4	10.4	9.4	
FINANCIAL DIST	12	12	12	12	12	12	5	5	5	5	5	
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	R	R	R	R	R	
NO. OF LANES	3	2	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	48	32	32	22	22	22	22	22	22	32	30	
SUFFICENCY RATING	60	54	98	56	57	54	55	54	54	95	95	
DESIGN ADT 20 YEAR	4000	2600	700	700	500	500	400	400	400	400	400	
NO. OF LANES & DESIGN WIDTH		2-40		2-30	2-36	2-34	2-34	2-34	2-34			
TIME OF IMPROVEMENT (YEARS)		77-86		77-86	77-86	72-76	72-76	72-76	72-76			
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		121		111	111	111	111	111	111			
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY				8	16	58	42	42	18			
UTILITIES						11	4	11	4			
GRADE & DRAINAGE		6		55	107	563	420	433	169			
BASE & SURFACE		19		143	241	818	504	582	238			
STRUCTURES						70	130		85			
INCIDENTALS *		2		8	13	55	41	41	17			
TOTAL COST **		57		214	377	1579	1207	1109	531			

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC.
** 10% FOR ENG'R IS INCLUDED

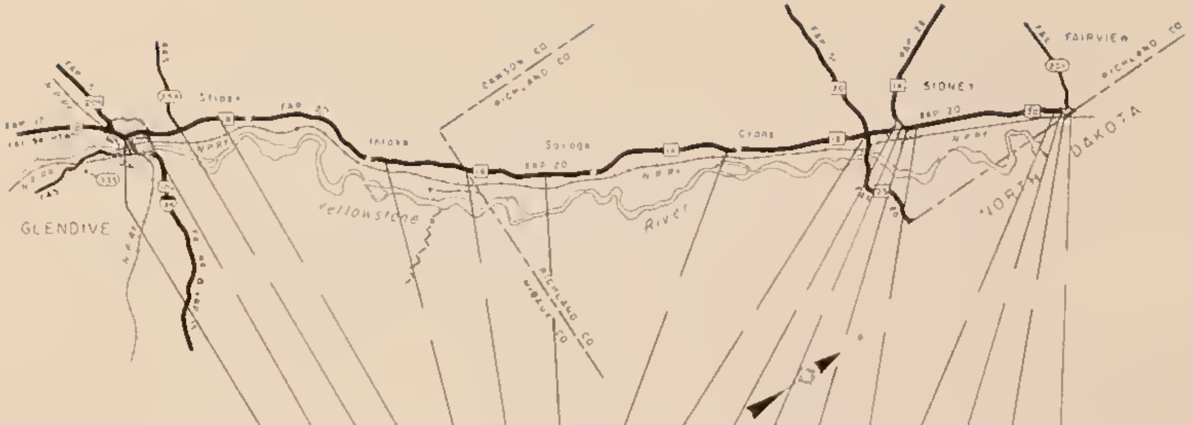
FAP ROUTE NO 18
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	7.1	8.9	9.8	12.3	18.9	20.2	21.9	24.2		27.6	30.7	31.5	34.2	38.4	48.1	57.2	62.3
LENGTH (MILES)	7.1	1.8	0.9	2.5	6.6	1.3	1.7	2.3	3.4		3.1	0.8	2.7	4.2	9.7	9.1	5.1	1.1
FINANCIAL DIST.	9	9	9	9	9	9	9	9	9		8	8	8	8	8	8	8	8
CLASS (RURAL-URBAN-FOREST)	R	U	U	U	FR	FR	FR	FR	FR		FR	FR	FR	R	R	R	R	R
NO. OF LANES	4	4	4	2	2	3	2	2	2		2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	114	48	94	26	26	30	26	40	26		26	32	32	32	32	24	22	32
SUFFICENCY RATING	99	95	95	95	76	68	67	62	54		50	72	76	72	87	46	44	95
DESIGN ADT 20 YEAR	4000	9900	9000	2200	2200	2200	2200	2200	2200		1100	1100	1000	1100	1000	1000	1000	1600
NO. OF LANES & DESIGN WIDTH				2-44	2-44	4-54	2-44	2-44	2-44		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)				77-86	77-86	77-86	77-86	77-86	72-76		72-76	76-86	77-86	77-86	77-86	68-71	68-71	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST				(2)	(2)	(2)	(2)	(2)	(1)		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
ESTIMATED NEEDS IN THOUSANDS																		
RIGHT OF WAY				100	209	5	7		68		12	3	35	49	87	109	61	
UTILITIES				24	12	1	2		3				4	4	4	60	28	
GRADE & DRAINAGE				60	138	67	78	19	168		686	62	117	184	578	294	225	5
BASE & SURFACE				70	174	22	29	38	264		191	43	181	282	571	612	344	13
STRUCTURES														39		114	24	
INCIDENTALS *				7	18	2	5	4	16		27	3	11	17	93	37	22	
TOTAL COST **				261	551	97	121	50	519		916	111	348	575	1333	1226	704	18

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR. IS INCLUDED

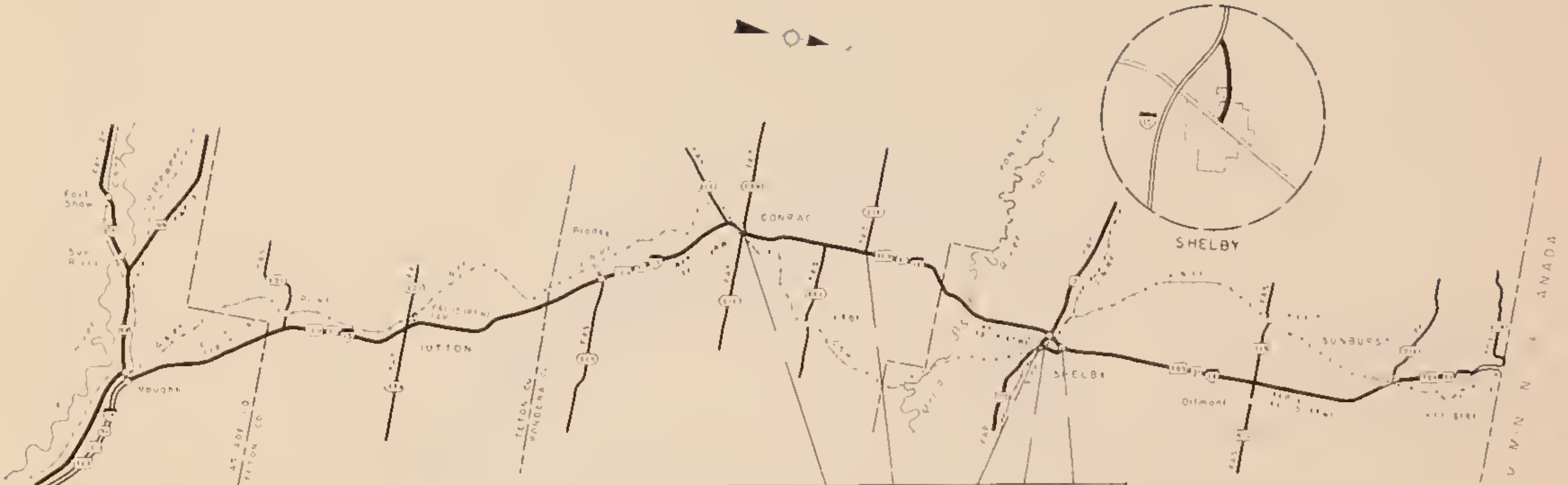
FAP ROUTE NO 19
SHEET 1 OF 1



ACCUM ROUTE MILEAGE	0.0	1.7	3.7	6.1	18.9	23.1	28.9	41.7	49.9	51.6	51.8	52.3	53.0	62.7	63.3	63.8
LENGTH (MILES)	1.7	2.0	2.4	12.8	4.2	5.8	12.8	8.2	1.7	0.2	0.5	0.7	9.7	0.6	0.5	0.3
FINANCIAL DIST.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	R	R	R	U	U	U	R	U	U	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	40	44	40	40	30	30	22	22	22	22	58	40	22	30	64	34
SUFFICENCY RATING	80	95	95	95	53	58	47	44	25	64	85	85	40	56	85	64
DESIGN ADT 20 YEAR	4000	4000	1400	1400	1400	1500	1900	1500	6200	6200	8000	4000	3200	5000	5000	2400
NO OF LANES & DESIGN WIDTH	2-44				2-40	2-40	2-40	2-40	4-84	4-84	2-58	2-48	2-44	2-48	2-64	2-40
TIME OF IMPROVEMENT (YEARS)	77-86				77-86	77-86	68-71	68-71	1967	1967	72-76	72-76	1967	68-71	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)				(2)	(2)	(1)	(1)	(1)	(2)	(2)	(2)	(1)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY							154	109		5		7	116	21		
UTILITIES							9	4	4	2		2	17	10		
GRADE & DRAINAGE	6				25	51	450	206	126	24		51	317	15		2
BASE & SURFACE	30				172	210	1004	678	277	31	23	45	820	102	10	7
STRUCTURES						21	41	47								
INCIDENTALS ●	7				11	15	65	74	33	2	3	5	43	5	2	
TOTAL COST ●●	43				208	297	1723	1008	440	64	26	110	1313	153	12	9

● RY. GRADE XR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC.
●● 10% [illegible] IS INCLUDED

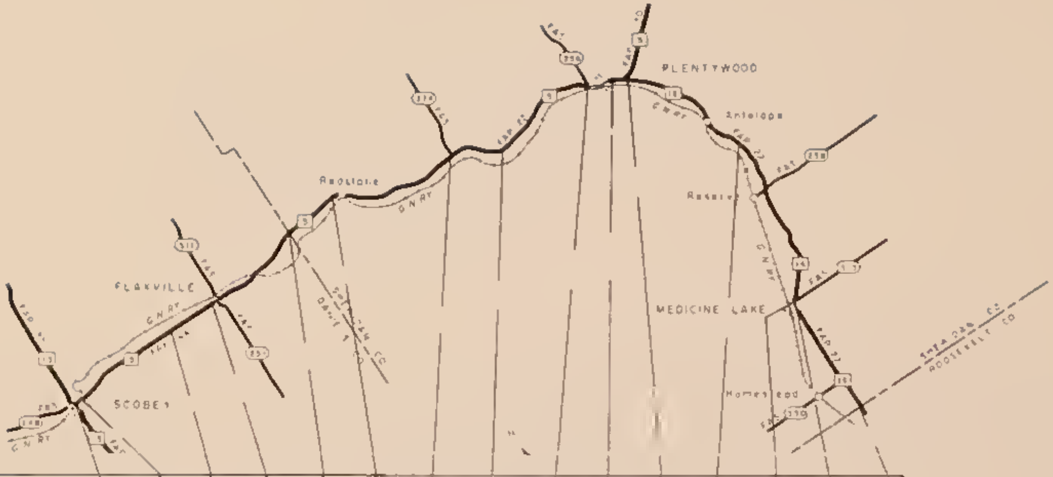
FAP ROUTE NO 20
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE		48.8		74.6	75.3		
LENGTH (MILES)		8.5		0.7	1.1		
FINANCIAL DIST.		6		2	2		
CLASS (RURAL-URBAN-FOREST)		R		U	R		
NO. OF LANES		2		2	2		
EXISTING ROADWAY WIDTH		32		30	29		
SUFFICENCY RATING		80		45	45		
DESIGN ADT 20 YEAR	I 15	300	I 15	1000	1000	I 15	
NO. OF LANES & DESIGN WIDTH		2-32		2-40	2-40		
TIME OF IMPROVEMENT (YEARS)		77-86		68-71	60-71		
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)		(1)	(1)		
ESTIMATED NEEDS IN THOUSANDS							
RIGHT OF WAY	CONCURRENT WITH		CONCURRENT WITH	14	4	CONCURRENT WITH	
UTILITIES				10	4		
GRADE & DRAINAGE				15	48		
BASE & SURFACE		10		37	68		
STRUCTURES				200			
INCIDENTALS ●		5		4	4		
TOTAL COST ●●		15		275	178		

● [illegible] GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC.
●● 10% FOR E & C [illegible] INCLUDED

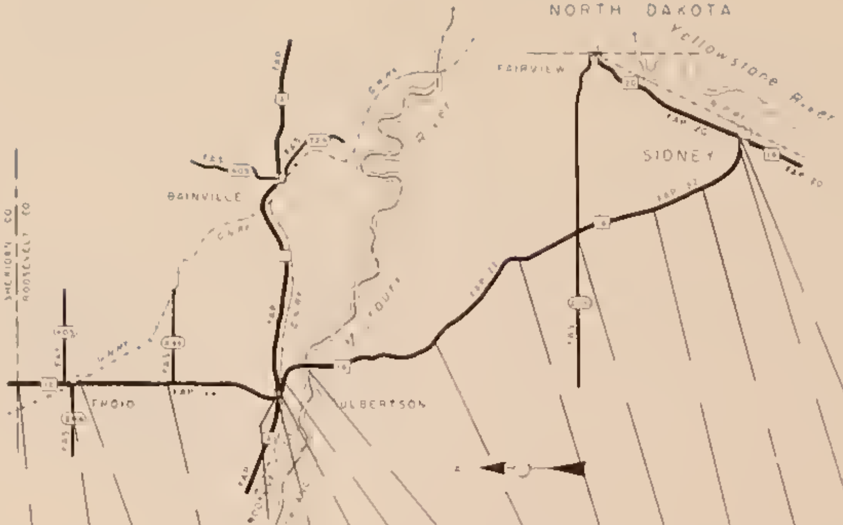
FAP ROUTE N 21
SHEET [illegible]



ACCUM. ROUTE MILEAGE	0.0	0.5	7.6	10.2	17.9	20.9	29.3	32.3	41.1	42.3	47.2	52.4	63.9	64.1
LENGTH (MILES)	0.5	7.1	2.6	7.7	3.0	8.4	3.0	8.8	1.2	0.9	9.2	11.5	0.2	7.5
FINANCIAL DIST.	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	R	R	U	R	R	R	U	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	48	32	24	24	24	26	26	26	48	24	24	32	24	24
SUFFICENCY RATING	99	95	53	57	57	59	61	52	90	36	50	82	60	50
DESIGN ADT 20 YEAR	900	900	900	600	600	600	1200	1200	4000	2800	1700	1400	1400	1200
NO. OF LANES & DESIGN WIDTH		2-40	2-40	2-34	2-34	2-36	2-40	2-40		2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)		77-86	72-76	77-86	77-86	77-86	77-86	72-76		1967	72-76	77-86	68-71	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(1)	(1)	(1)	(1)	(1)	(1)		(1)	(1)	(2)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY			10	31	12	25	9	35		16	32		4	70
UTILITIES			1	20		3	1	2		4	46		6	50
GRADE & DRAINAGE		34	78	205	92	256	118	314		29	320		6	343
BASE & SURFACE		76	174	450	177	514	201	592		71	717	387	13	504
STRUCTURES				40		176		127		47	150			176
INCIDENTALS ●		14	10	38	12	32	13	35		4	39	83	1	32
TOTAL COST ●●		124	273	790	293	1006	342	1115		171	1304	470	30	1135

● RR GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

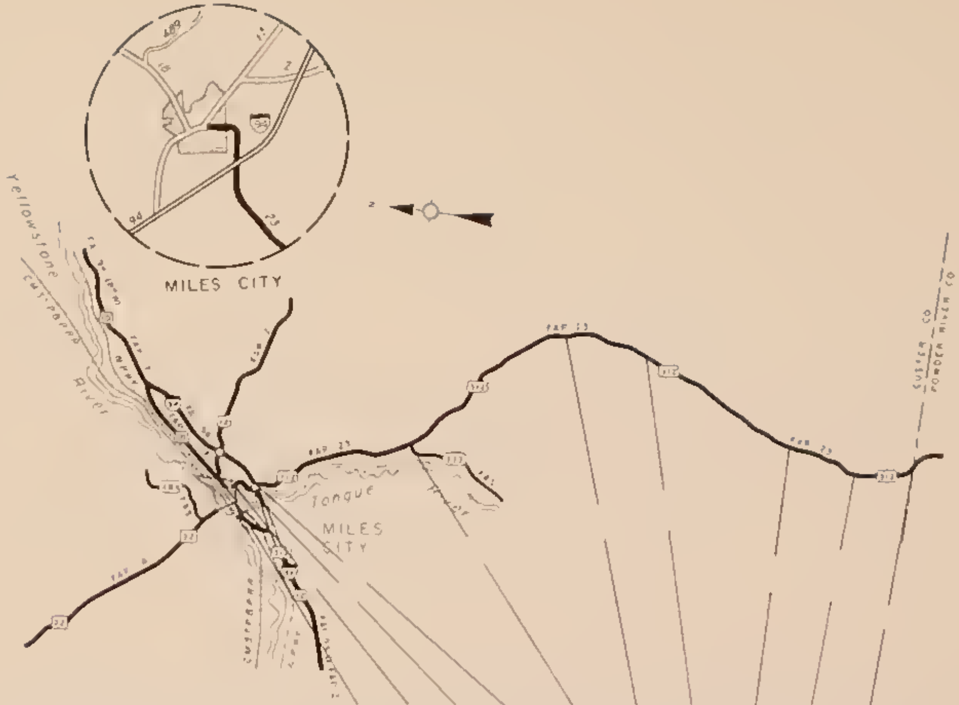
FAP ROUTE NO 22
SHEET OF 2



ACCUM. ROUTE MILEAGE	71.6	75.0	75.6	81.1	88.2	88.4	89.3	89.8	91.7	100.4	108.1	112.7	117.4	120.5	124.9
LENGTH (MILES)	3.4	0.6	5.5	7.1	0.2	0.9	0.5	1.9	8.7	7.7	4.6	4.7	3.1	4.4	0.9
FINANCIAL DIST	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
CLASS (RURAL-URBAN-FOREST)	R	U	R	R	U	U	R	R	R	R	R	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	32	40	44	32	24	24	26	26	26	26	26	40
SUFFICENCY RATING	49	48	47	88	99	95	89	47	51	51	60	55	55	41	35
DESIGN ADT 20 YEAR	1200	1200	1200	1200	1600	2400	1100	1100	1000	1000	1000	1600	1600	1600	4200
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	68-71	77-86		77-86	77-86	68-71	72-76	72-76	77-86	72-76	72-76	68-71	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	111	111	111	121		121	121	111	111	111	111	111	111	111	121
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY	14	7	17					8	35	23	14	19	12	18	5
UTILITIES	22	4	35					6	27	25	15	10	8	5	5
GRADE & DRAINAGE	164	27	240	50			4	84	400	367	214	243	136	193	39
BASE & SURFACE	229	41	379	168		16	12	127	586	523	308	363	242	344	56
STRUCTURES	35		56						187	70				46	
INCIDENTALS ●	15	5	24	16		4	1	8	39	44	20	22	14	20	6
TOTAL COST ●●	478	84	751	234		20	17	233	1274	1052	571	657	412	626	110

● AT GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC.
●● 10% FOR ENG'G IS INCLUDED

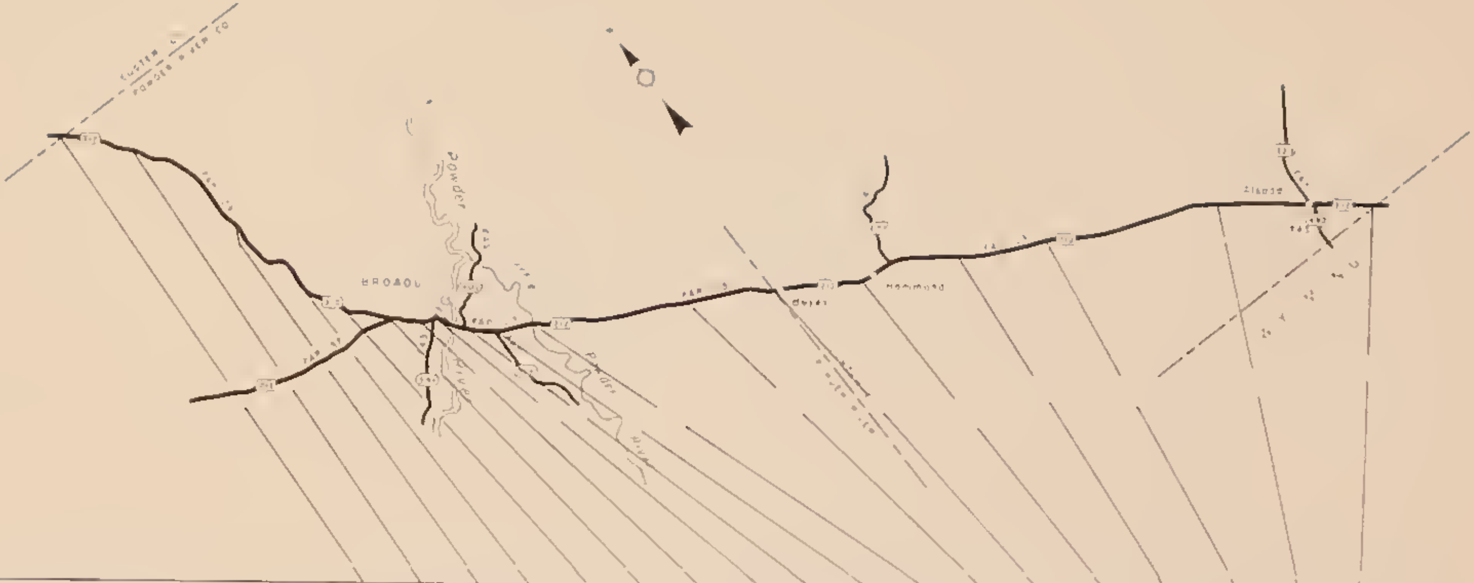
FAP R TE NO 22
SHEET 2 OF 2



ACCUM ROUTE MILEAGE	0.0	0.5	1.6	1.8	14.2	27.4	32.9	43.7	47.4
LENGTH (MILES)	0.5	1.1	0.2	12.4	13.2	5.5	10.8	3.7	2.7
FINANCIAL DIST.	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	U	U	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	48	26	26	26	20	22	22	22	20
SUFFICENCY RATING	82	58	40	52	92	52	51	53	64
DESIGN ADT 20 YEAR	6000	7000	6000	1100	660	660	660	660	650
NO. OF LANES & DESIGN WIDTH	2-48	2-44	2-44	2-40	2-36	2-36	2-36	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	72-76	68-71	68-71	72-76	77-86	72-76	72-76	72-76	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(1)	(1)	(2)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS									
RIGHT OF WAY		12	4	49		22	75	31	11
UTILITIES	5	29	7	40		6	11	4	3
GRADE & DRAINAGE	20	51	8	719	63	193	390	175	104
BASE & SURFACE	14	98	17	833	143	339	668	228	159
STRUCTURES								50	
INCIDENTALS ●	5	7	1	56	25	69	42	16	11
TOTAL COST ●●	44	197	37	1697	231	629	1186	504	288

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'S IS INCLUDED

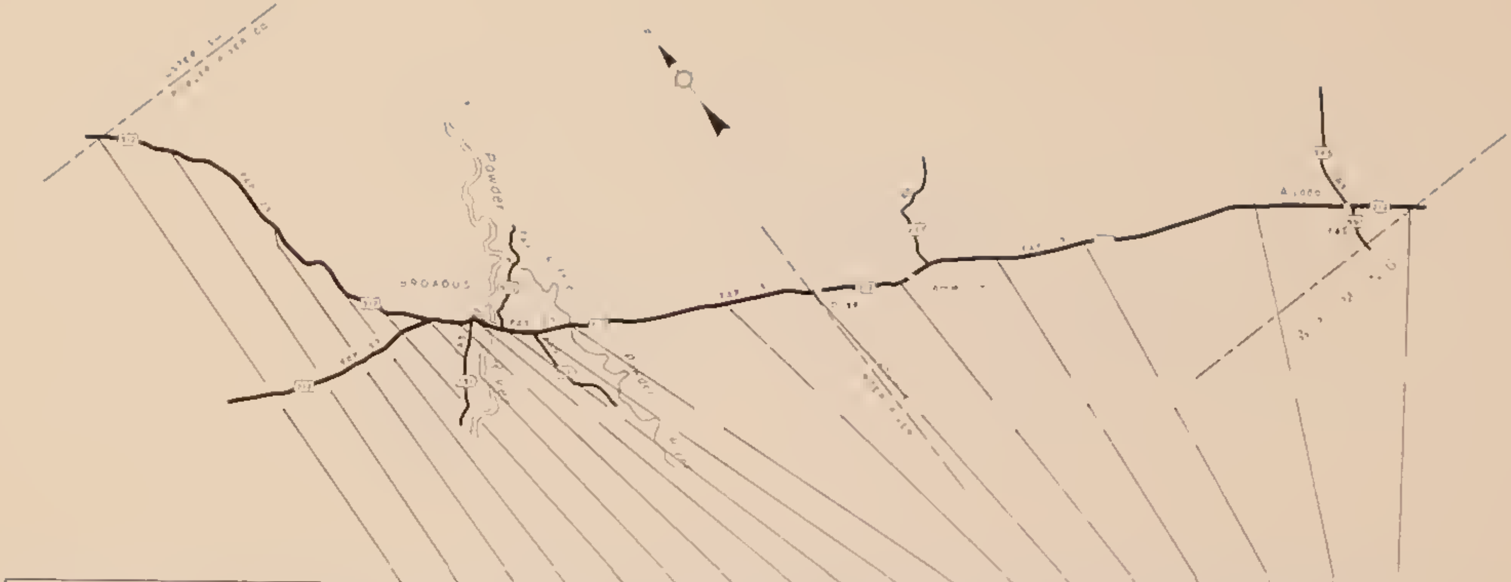
FAP ROUTE NO 23
SHEET 1 OF 2



ACCUM ROUTE MILEAGE	50.1	55.3	64.1	70.2	72.5	75.9	77.4	78.6	80.6	82.7	85.1	95.1	101.1	107.0	112.4	118.9	129.7
LENGTH (MILES)	5.2	8.8	6.1	2.3	3.4	1.5	1.2	1.6	2.1	2.4	10.0	6.0	5.9	5.4	6.5	10.8	9.6
FINANCIAL DIST	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	26	25	26	26	30	24	26	26	24	25	28	28	40	28	28	40
SUFFICENCY RATING	75	62	65	60	65	68	68	45	57	49	57	75	64	63	91	78	95
DESIGN ADT 20 YEAR	600	600	600	600	600	2440	2440	1600	1260	1000	1000	1000	1000	1000	1000	1000	1200
NO. OF LANES & DESIGN WIDTH	2-36	2-34	2-34	2-36	2-34	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86	68-71	77-86	68-71	77-86	77-86	77-86	77-86	77-86	1967	
IMPROVEMENT (1) NEW (2) UPGRADE EXIST	111	111	111	111	111	121	111	111	111	111	111	121	121	121	121	121	
ESTIMATED NEEDS IN THOUSANDS																	
RIGHT OF WAY	21	35	24	9	10		5	15	8	10	40	6	6				
UTILITIES	5	12	15	6			13	4	9	8	4	6	6				
GRADE & DRAINAGE	145	359	249	81	131	17	52	70	92	117	440	73	86	54	79	130	
BASE & SURFACE	321	521	362	142	201	30	93	126	141	161	674	244	240	145	175	513	
STRUCTURES			63								217						
INCIDENTALS *	20	35	24	8	63	2	3	5	9	11	43	17	17	13	6	82	
TOTAL COST **	512	962	737	246	405	49	166	220	259	307	1418	346	355	212	260	725	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

FAP ROUTE # 23
SHEET 2 OF 2

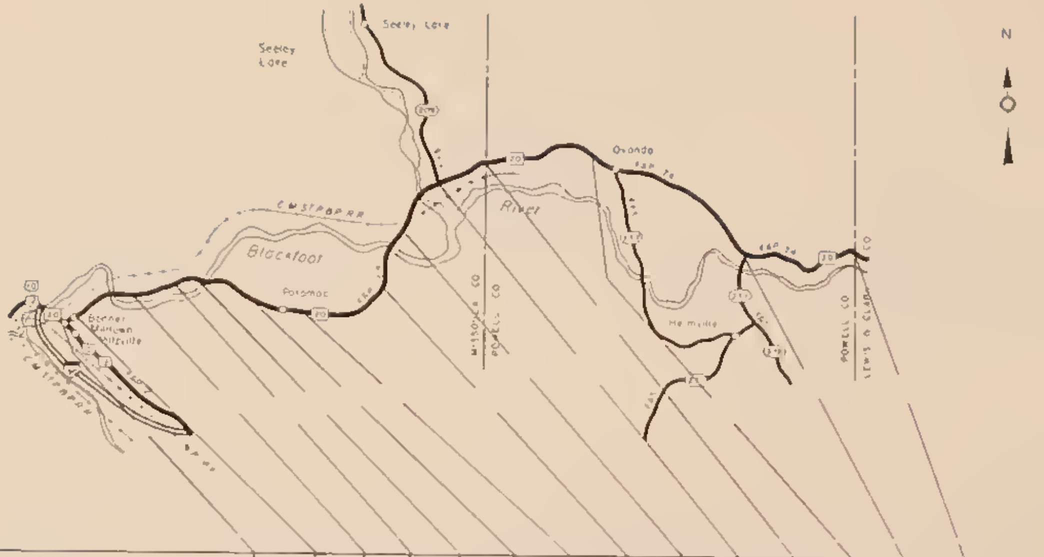


ACCUM ROUTE MILEAGE	50.1	55.3	64.1	70.2	72.5	75.9	77.4	78.6	80.0	82.7	85.1	95.1	101.1	107.0	112.4	118.9	129.7
LENGTH (MILES)	5.3	8.8	6.1	2.3	3.4	1.5	1.3	1.6	2.1	2.4	10.0	6.0	5.9	5.4	6.5	10.9	9.0
FINANCIAL DIST.	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
NO OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	26	26	26	26	30	24	26	26	24	26	28	28	40	28	28	40
SUFFICENCY RATING	75	62	65	60	65	68	68	45	57	49	57	75	64	67	91	78	95
DESIGN ADT 20 YEAR	600	600	600	600	600	2440	2440	1000	1200	1000	1000	1000	1000	1000	1000	1000	1200
NO. OF LANES & DESIGN WIDTH	2-36	2-34	2-34	2-36	2-34	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86	68-71	77-86	68-71	77-86	77-86	77-86	77-86	77-86	1967	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	111	111	111	111	111	121	111	111	111	111	111	121	121	121	121	121	
ESTIMATED NEEDS IN THOUSANDS																	
RIGHT OF WAY	21	35	20	9	10		5	15	8	10	40	0	0				
UTILITIES	5	12	15	6			13	4	9	6	4	0	0				
GRADE & DRAINAGE	145	359	249	81	171	17	52	70	92	117	440	73	86	54	79	130	
BASE & SURFACE	321	521	362	142	201	30	93	126	141	161	674	249	240	145	175	513	
STRUCTURES			63								217						
INCIDENTALS ●	20	35	24	8	23	2	3	5	0	11	41	17	17	13	6	82	
TOTAL COST ●●	512	962	717	246	405	49	166	220	250	307	1416	340	355	212	260	725	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

●● 10% FOR ENG'R IS INCLUDED

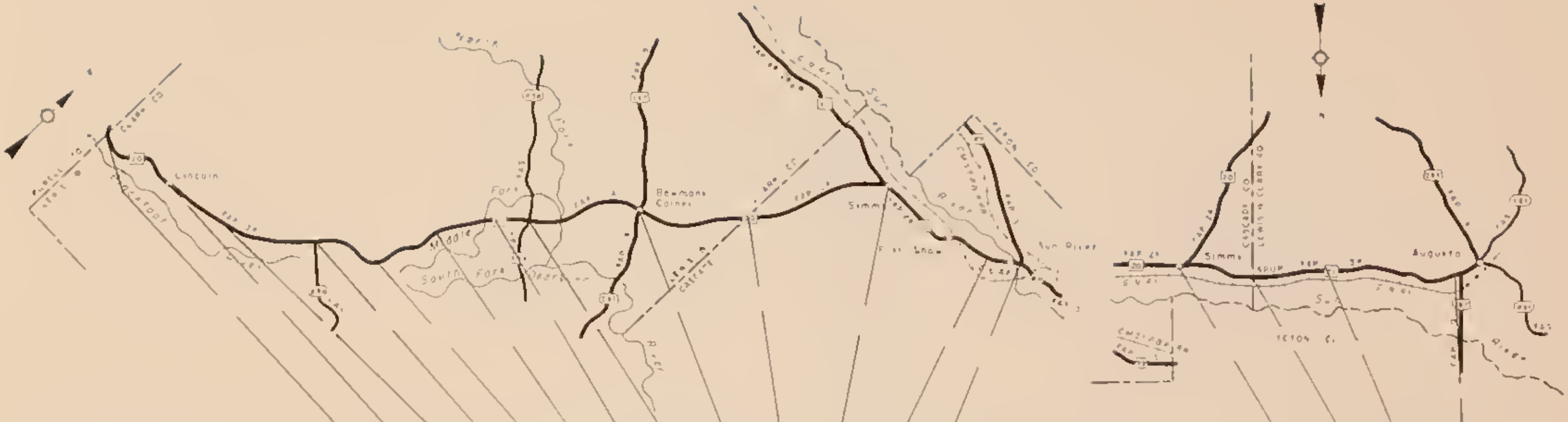
F.A.P. ROUTE NO. 23
SHEET 2 OF 2



ACCUM. ROUTE MILEAGE	0.0	0.8	4.9	7.5	8.8	12.1	16.3	22.2	26.5	31.7	35.5	43.0	55.5	
LENGTH (MILES)	0.8	4.1	2.6	1.3	3.3	4.2	5.9	4.3	5.2	3.8	7.5	12.5	9.9	
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8	8	8	8	8	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	32	26	40	24	20	24	24	26	20	30	20	26	20	
SUFFICENCY RATING	42	37	95	33	46	52	49	48	50	61	73	84	75	
DESIGN ADT 20 YEAR	2400	2100	2200	2200	2200	2200	2200	2200	2200	1700	1700	1500	1000	
NO OF LANES & DESIGN WIDTH	2-40	2-40		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	1967	1967		1967	68-71	72-76	72-76	72-76	72-76	77-86	77-86	77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY	16	85		65	59	41	24	17	21	15	30			
UTILITIES	3	18					7	8	23	4	30			
GRADE & DRAINAGE	20	483		153	180	479	816	507	220	226	329	120	252	
BASE & SURFACE	102	253		91	204	259	461	235	408	235	537	370	293	
STRUCTURES					400			85	51		62			
INCIDENTALS *	14	24		8	20	24	41	24	34	17	32	31	23	
TOTAL COST **	155	863		307	1132	803	1329	876	766	477	1020	521	573	

● RR GRADE OR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR CE&E IS INCLUDED

FAP ROUTE NO 24
SHEET 1 OF 2



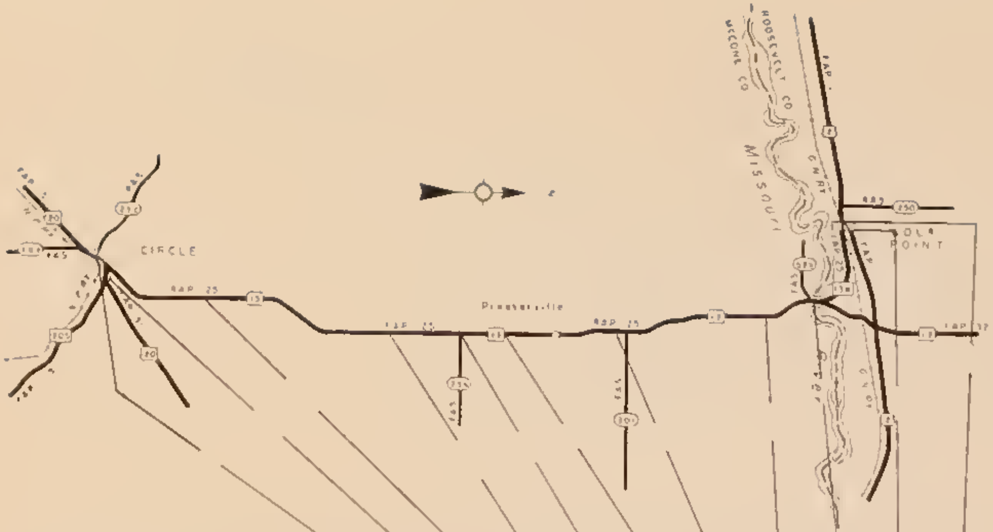
ACCUM. ROUTE MILEAGE	65.4	72.2	76.1	82.0	86.1	91.2	97.0	100.5	109.1	116.9	127.4	138.4
LENGTH (MILES)	6.8	7.9	5.9	4.1	5.1	5.8	7.5	8.6	7.1	10.5	11.0	1.3
FINANCIAL DIST	7	7	7	7	7	7	7	7	7	6	6	6
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	FR	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	25	26	28	28	28	28	28	26	26	32	30
SUFFICENCY RATING	70	73	72	83	79	55	58	63	51	51	85	43
DESIGN ADT 20 YEAR	1600	1600	1600	1200	1200	1100	1200	1000	1200	1200	2200	2200
NO OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	72-76	77-86	77-86	72-76	72-76	77-86	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY	27	13	21			13	7	34	31	42		16
UTILITIES	7	4	6				4	9	8	11		1
GRADE & DRAINAGE	361	127	261	37	33	174	47	377	345	474	48	50
BASE & SURFACE	421	240	363	37	46	124	76	471	527	575	135	100
STRUCTURES			88	46			62	92	46	39		235
INCIDENTALS *	29	14	37	8	2	9	8	74	82	41	70	5
TOTAL COST **	845	397	765	128	81	279	204	1017	1032	1187	241	409

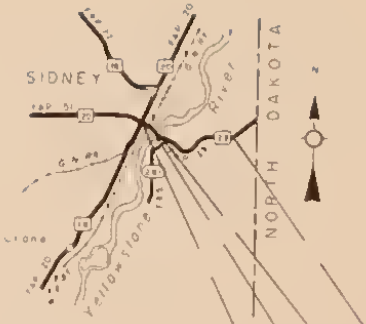
* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

ACCUM. ROUTE MILEAGE	139.7	145.3	150.9
LENGTH (MILES)	5.6	5.6	9.9
FINANCIAL DIST.	6	7	7
CLASS (RURAL-URBAN-FOREST)	R	R	R
NO. OF LANES	2	2	2
EXISTING ROADWAY WIDTH	22	24	24
SUFFICENCY RATING	54	58	57
DESIGN ADT 20 YEAR	500	500	500
NO OF LANES & DESIGN WIDTH	2-34	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS			
RIGHT OF WAY	22	22	40
UTILITIES	6	6	10
GRADE & DRAINAGE	245	240	409
BASE & SURFACE	330	340	584
STRUCTURES	79		132
INCIDENTALS *	22	22	39
TOTAL COST **	704	630	1214

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

FAP ROUTE 24 & SPUR
SHEET 2 OF 2





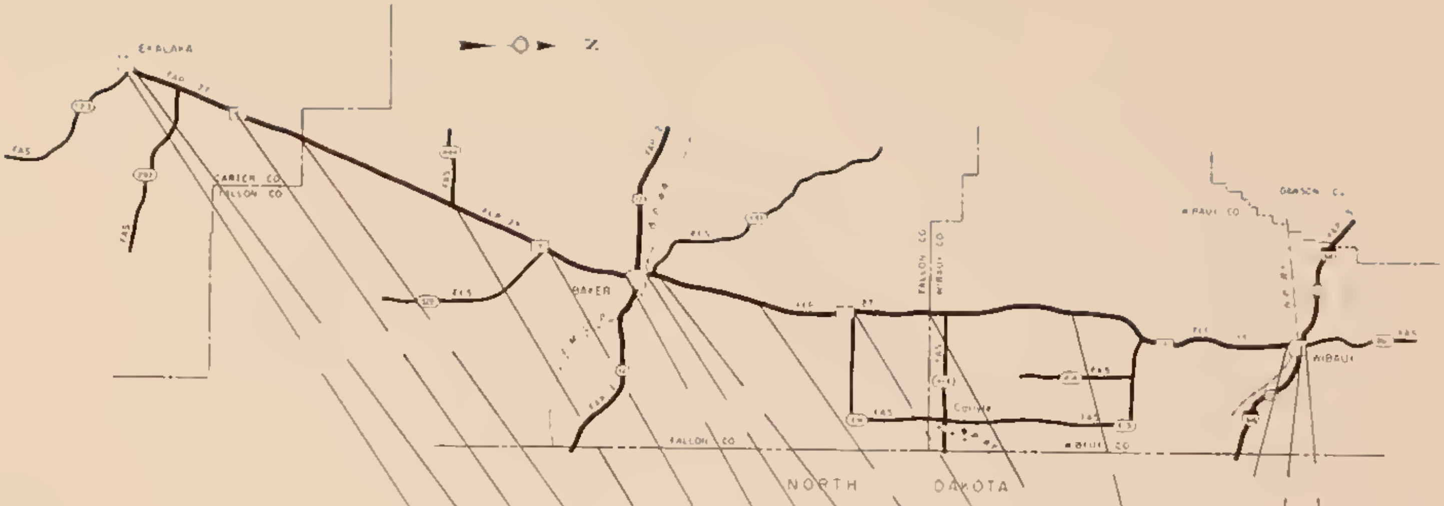
ACCUM. ROUTE MILEAGE	0.0	0.2	7.8	20.9	15.4	28.1	35.5	44.7	46.5	52.4
LENGTH (MILES)	0.2	7.6	13.1	4.5	2.7	7.4	9.2	1.8	5.9	0.4
FINANCIAL DIST.	4	4	4	4	4	4	4	4	3	3
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	4
EXISTING ROADWAY WIDTH	24	24	26	26	26	26	26	26	24	68
SUFFICENCY RATING	50	50	53	55	26	55	54	49	50	83
DESIGN ADT 20 YEAR	2000	860	860	860	830	860	1000	1000	1600	9000
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	4-68
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	72-76	72-76	1967	72-76	72-76	68-71	68-71	72-76
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	121	111	111	111	111	111	111	111	111	121
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY		30	52	18	11	22	28	7	24	14
UTILITIES		50	86	30	18	49	61	12	36	4
GRADE & DRAINAGE	2	351	577	226	81	353	446	92	188	29
BASE & SURFACE	5	512	882	302	180	497	620	121	461	34
STRUCTURES		47	200		70	51	70		972	900
INCIDENTALS ●	1	43	58	19	11	32	41	0	25	9
TOTAL COST ●●	8	1033	1855	595	371	1004	1266	240	1706	990

● BY GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR CE&P IS INCLUDED

ACCUM ROUTE MILEAGE	0.0	0.8	1.9
LENGTH (MILES)	0.8	1.1	5.6
FINANCIAL DIST.	4	4	4
CLASS (RURAL-URBAN-FOREST)	R	R	R
NO. OF LANES	2	2	2
EXISTING ROADWAY WIDTH	26	22	22
SUFFICENCY RATING	52	46	50
DESIGN ADT 20 YEAR	1000	1000	380
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-30
TIME OF IMPROVEMENT (YEARS)	72-76	68-71	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	111	111	111
ESTIMATED NEEDS IN THOUSANDS			
RIGHT OF WAY	7	4	22
UTILITIES	2	2	12
GRADE & DRAINAGE	28	28	215
BASE & SURFACE	53	61	302
STRUCTURES			
INCIDENTALS ●	13	3	20
TOTAL COST ●●	100	98	571

● BY GRADE RR CROSSINGS, BEAUTIFICATION TRAFFIC CONTROL & MISC
●● 10% FOR CE&P IS INCLUDED

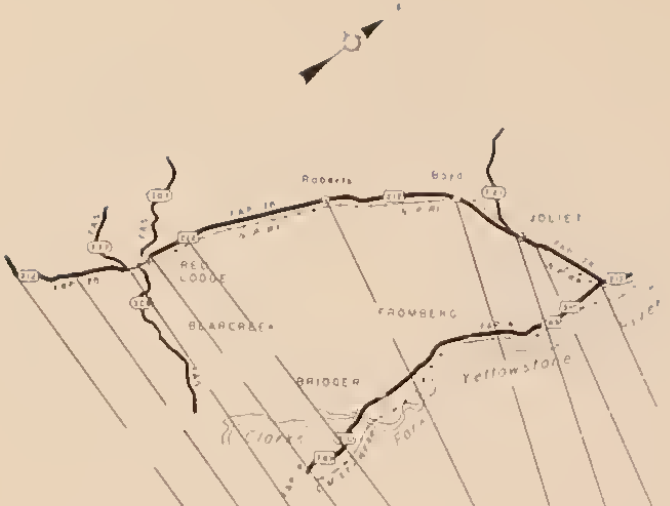
FAP ROUTE NO 25 & 26
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.4	7.3	12.1	22.5	29.1	34.6	35.4	35.7	44.3	49.5	54.5	65.8	79.0	79.7
LENGTH (MILES)	0.4	6.9	4.8	10.4	6.6	5.5	0.8	0.3	8.6	5.2	5.0	11.3	13.2	0.7	0.1
FINANCIAL DIST.	12	12	12	12	12	12	12	12	12	12	12	4	4	4	4
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	U	U	R	R	R	R	R	U	U
NO. OF LANES	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	25	28	28	30	78	30	32	32	20	28	32	40
SUFFICENCY RATING	70	64	63	64	58	54	52	95	67	67	65	95	95	87	85
DESIGN ADT 20 YEAR	800	600	600	500	700	1300	4000	4000	1100	1100	620	600	600	2400	2400
NO. OF LANES & DESIGN WIDTH	2-40	2-34	2-34	2-34	2-34	2-40	2-44	4-78	2-40	2-40	2-34	2-34	2-34	2-34	2-44
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	72-76	72-76	77-85	77-85	77-85	77-86	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY	1	15	19	37	23	22	40								10
UTILITIES	1	30	21	46	29	24	10								5
GRADE & DRAINAGE	13	315	285	430	255	241	60	10	75	37	15	82	109		
BASE & SURFACE	26	409	205	622	300	370	68	13	416	262	162	110	129	9	43
STRUCTURES		50										10	19		
INCIDENTALS ●		28	19	42	26	21	9	10	26	15	9	21	35	3	2
TOTAL COST ●●	41	847	549	1177	721	680	187	33	537	314	186	223	381	12	60

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'G IS INCLUDED

FAP ROUTE 27
SHEET 1 OF 1

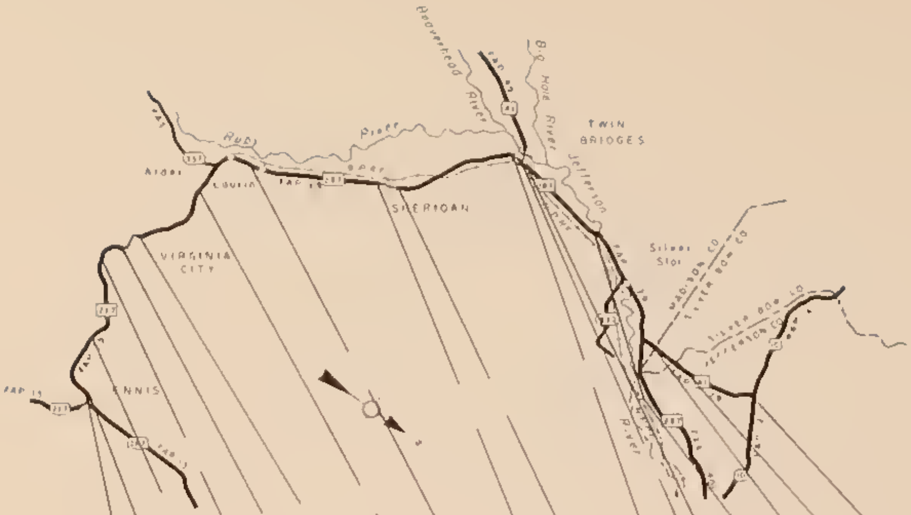


ACCUM. ROUTE MILEAGE	0.0	4.2	8.7	10.3	12.2	22.0	30.9	35.4	36.4
LENGTH (MILES)	4.2	4.5	1.6	1.9	9.8	3.9	4.5	1.0	5.2
FINANCIAL DIST.	11	11	11	11	11	11	11	11	11
CLASS (RURAL-URBAN-FOREST)	FR	FR	U	R	R	R	R	U	R
NO OF LANES	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	22	22	40	40	40	24	24	24	24
SUFFICENCY RATING	47	50	65	49	57	57	41	55	36
DESIGN ADT 20 YEAR	1200	1200	4000	1600	1800	1800	1600	2400	2400
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-44	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	68-71	72-76	68-71	68-71	77-85	77-80	68-71	68-71	1967
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS									
RIGHT OF WAY		33	31	23	118	107	54	16	64
UTILITIES		5	10	6	32	29	15	6	2
GRADE & DRAINAGE	230	257	60	56	295	280	148	17	172
BASE & SURFACE	230	247	136	147	707	607	352	69	414
STRUCTURES		39				75	75		
INCIDENTALS *	18	19	11	8	42	38	19		25
TOTAL COST **	478	602	251	240	1254	1120	559	108	678

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

FAP ROUTE NO 28

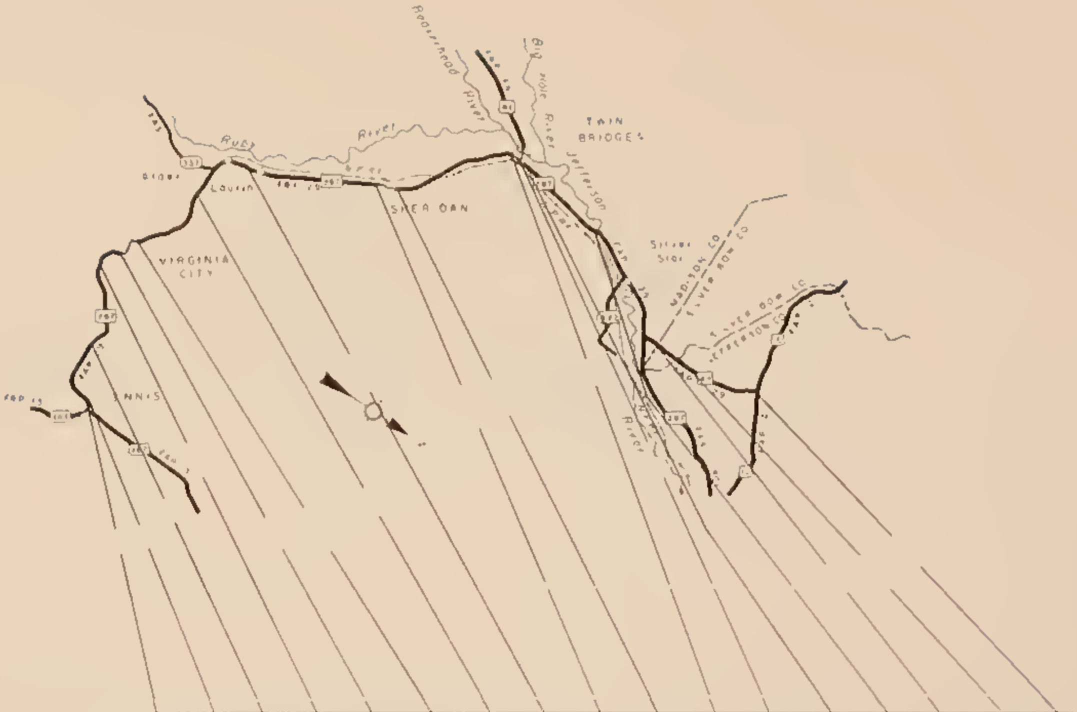
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.2	5.7	10.7	13.0	14.6	19.9	25.2	33.1	34.2	42.3	42.9	43.3	49.9	58.4	59.9
LENGTH (MILES)	0.2	5.5	5.0	2.3	1.6	5.3	5.3	7.9	1.1	8.1	0.6	0.4	6.6	8.5	1.5	5.8
FINANCIAL DIST.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	U	R	R	R	U	R	U	U	R	R	R	R
NO. OF LANES	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	28	28	32	24	24	24	44	24	40	44	24	24	24	24
SUFFICENCY RATING	65	48	60	77	80	53	58	56	92	54	95	95	49	50	56	56
DESIGN ADT 20 YEAR	1300	1300	1300	1300	1200	1100	1100	1100	2200	1600	2000	2600	1400	1400	600	600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-44	4-76	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-44	2-40	2-40	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	68-71	77-86	77-86	72-76	77-86	77-86	77-86	72-76	77-86	77-86	68-71	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY	4	22	20	5		21	21	32		48	2	2	49	65	6	21
UTILITIES	1	2	1			5	6	8		8	5	5	7	9	2	6
GRADE & DRAINAGE	7	224	284	181		283	159	259		257	16	10	197	380	78	255
BASE & SURFACE	9	265	240	51	20	290	290	433	19	499	42	30	161	466	81	329
STRUCTURES													206	35		112
INCIDENTALS ●		20	20	7	2	22	20	30		31	1	1	24	35	6	27
TOTAL COST ●●	21	533	565	244	22	621	496	762	19	843	66	48	934	990	173	748

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR [illegible] IS INCLUDED

FAP ROUTE NO 29
SHEET 1 OF 1

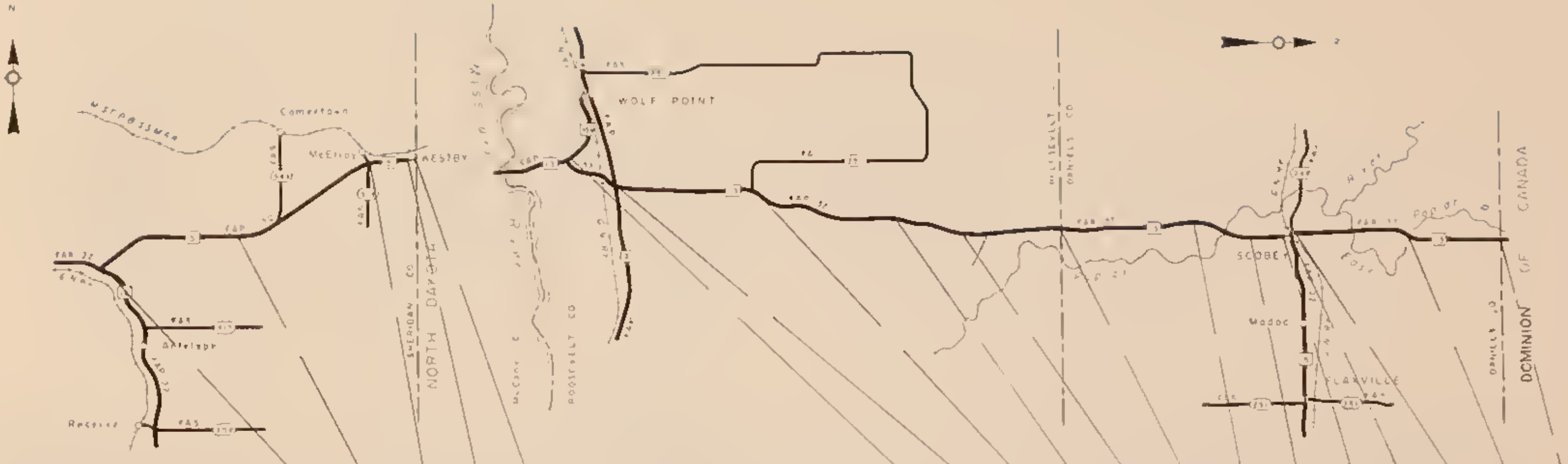


ACCUM. ROUTE MILEAGE	0.0	0.2	5.7	10.7	13.0	14.6	19.9	25.2	33.1	34.2	42.3	42.9	43.3	49.9	58.4	59.9
LENGTH (MILES)	0.2	5.5	5.0	2.3	1.6	5.3	5.3	7.9	1.1	8.1	0.6	0.4	6.6	8.5	1.5	5.8
FINANCIAL DIST.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CLASS (RURAL-URBAN-FOREST)	U	R	F	R	U	R	R	R	U	R	U	U	F	R	R	R
NO. OF LANES	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	28	28	32	24	24	24	44	24	40	44	24	24	24	24
SUFFICENCY RATING	65	48	60	77	80	57	58	56	92	54	95	95	49	50	56	56
DESIGN ADT 20 YEAR	1300	1300	1300	1300	1200	1100	1100	1100	2200	1600	2600	2600	1400	1400	600	600
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-34	4-76	2-40	2-40	2-40	2-40	2-44	2-40	2-40	2-44	2-40	2-40	2-34	2-34
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	68-71	77-86	77-86	72-76	77-86	77-86	77-86	72-76	77-86	77-86	68-71	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																
RIGHT OF WAY	4	22	20	5		21	21	32		40	2	2	49	65	6	33
UTILITIES	1	2	1			5	6	8		8	5	5	7	9	2	6
GRADE & DRAINAGE	7	224	284	181		282	159	259		257	16	10	197	380	78	255
BASE & SURFACE	9	265	240	51	20	270	200	433	19	499	42	30	361	466	81	329
STRUCTURES													290	35		112
INCIDENTALS *		20	20	7	2	22	20	30		31	1	1	24	29	6	23
TOTAL COST **	21	533	565	244	22	621	496	762	19	817	66	48	934	990	173	748

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

FAP ROUTE NO 29

SHEET 1 OF 1



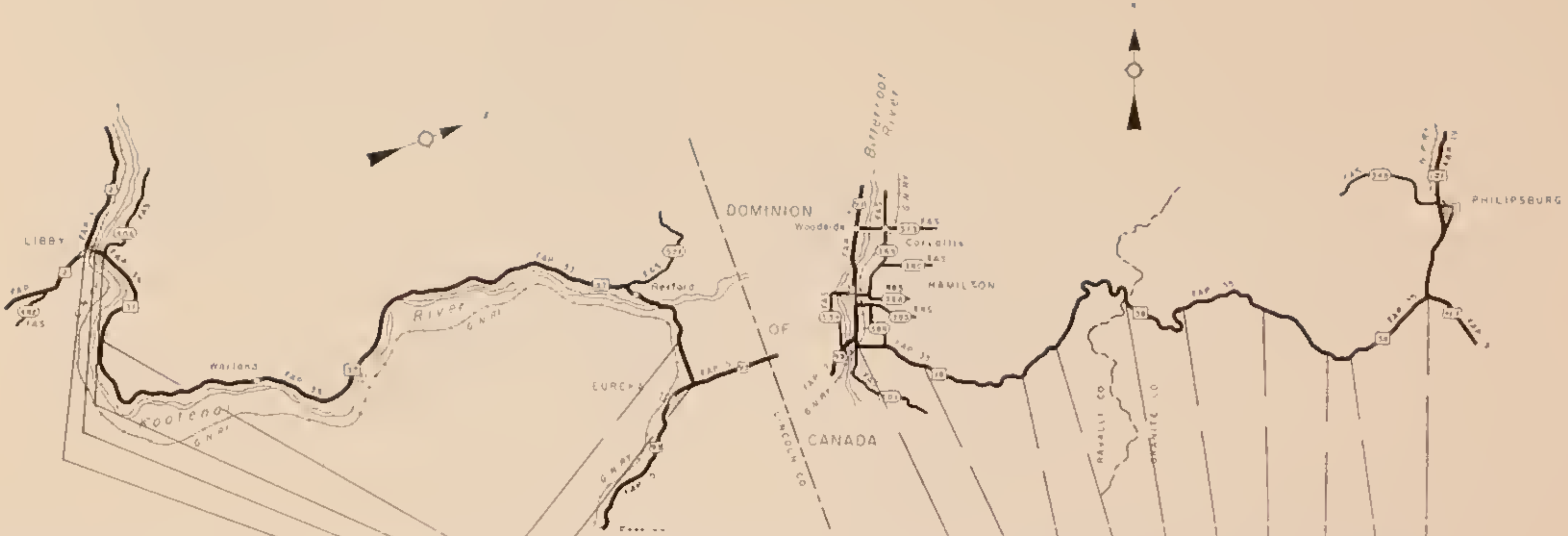
ACCUM. ROUTE MILEAGE	0.0	10.1	20.6	23.4
LENGTH (MILES)	10.1	10.5	2.8	0.8
FINANCIAL DIST.	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	R	R	U
NO. OF LANES	2	2	2	2
EXISTING ROADWAY WIDTH	26	26	26	44
SUFFICENCY RATING	54	59	55	66
DESIGN ADT 20 YEAR	600	600	800	1000
NO. OF LANES & DESIGN WIDTH	2-34	2-34	2-40	2-44
TIME OF IMPROVEMENT (YEARS)	72-76	77-86	72-76	72-76
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS				
RIGHT OF WAY	40	72	9	10
UTILITIES	27	28	7	5
GRADE & DRAINAGE	392	455	122	130
BASE & SURFACE	490	508	152	40
STRUCTURES				
INCIDENTALS ●	37	40	11	14
TOTAL COST ●●	980	1063	301	198

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

ACCUM. ROUTE MILEAGE	0.0	7.8	14.2	23.5	28.3	35.3	44.6	48.3	50.9	51.4	51.8	61.0
LENGTH (MILES)	7.8	10.4	9.3	4.8	7.0	9.3	3.7	2.6	0.5	0.4	9.2	4.8
FINANCIAL DIST	3	3	3	3	3	3	3	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	U	U	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	24	24	24	24	24	60	26	30	26
SUFFICENCY RATING	58	57	57	56	55	55	54	44	35	77	66	48
DESIGN ADT 20 YEAR	420	600	600	600	600	720	720	720	4000	4000	260	260
NO. OF LANES & DESIGN WIDTH	2-36	2-34	2-34	2-34	2-34	2-34	2-36	2-34		2-44	2-30	2-30
TIME OF IMPROVEMENT (YEARS)	77-85	72-76	77-80	77-85	72-76	72-76	72-76	68-71		77-85	77-86	66-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)		(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY	15	42	28	14	36	33	15	25				14
UTILITIES	25	69	51	33	46	61	24	25				
GRADE & DRAINAGE	105	406	373	185	282	395	115	100		14	22	115
BASE & SURFACE	225	615	550	255	414	550	230	154		29	285	250
STRUCTURES		47	70	40	171		162					
INCIDENTALS ●	15	41	37	19	27	18	14	10		11	22	16
TOTAL COST ●●	395	1321	1139	575	970	1076	560	315		54	339	405

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

FAP ROUTE NO 30 & 32
SHEET 1 OF 1



ACCUM ROUTE MILEAGE	0.0	0.7	1.3	9.3	60.5
LENGTH (MILES)	0.7	0.6	8.0	51.2	3.7
FINANCIAL DIST.	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	FU	FR	FR	FR	R
NO. OF LANES	2	2	2	2	2
EXISTING ROADWAY WIDTH	30	40	26	34	26
SUFFICENCY RATING	65	57	71	95	48
DESIGN ADT 20 YEAR	4800	3000	600	600	900
NO. OF LANES & DESIGN WIDTH	2-45	2-44	2-34		2-40
TIME OF IMPROVEMENT (YEARS)	68-71	77-86	77-86		68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)		(1)
ESTIMATED NEEDS IN THOUSANDS					
RIGHT OF WAY	10				23
UTILITIES	5				4
GRADE & DRAINAGE	23	2	26		171
BASE & SURFACE	51	20	258		227
STRUCTURES					
INCIDENTALS ●	2	1	19		16
TOTAL COST ●●	91	23	303		441

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

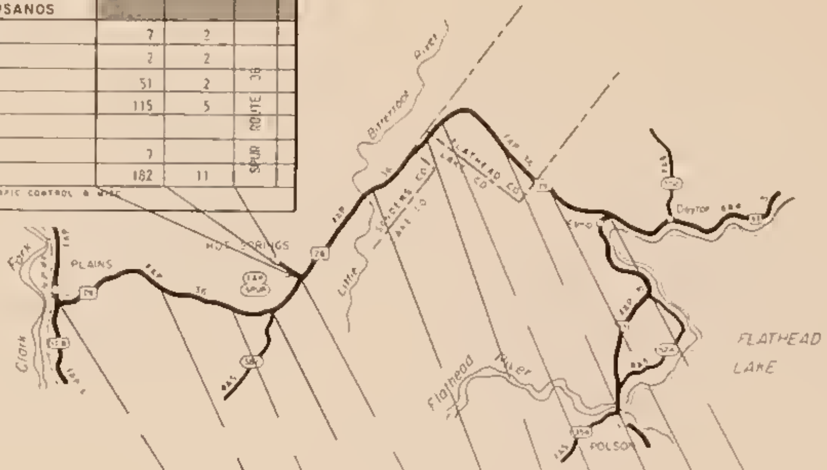
ACCUM ROUTE MILEAGE	0.0	5.6	14.6	17.8	26.4	32.7	39.8	46.1	47.3
LENGTH (MILES)	5.6	9.0	3.2	8.6	6.3	7.1	6.3	1.2	7.1
FINANCIAL DIST.	8	8	8	8	8	8	8	8	8
CLASS (RURAL-URBAN-FOREST)	R	R	FR	FR	FR	FR	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	30	28	18	18	18	18	28	28	28
SUFFICENCY RATING	60	95	53	54	55	55	55	55	95
DESIGN ADT 20 YEAR	400	200	200	140	140	140	200	200	200
NO. OF LANES & DESIGN WIDTH	2-30	2-28	2-28	2-28	2-28	2-28	2-28	2-28	
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	72-76	72-76	72-76	72-76	72-76	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(1)	(1)	(1)	(1)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS									
RIGHT OF WAY	10		6	17	13	14	10	2	
UTILITIES	5						5	1	
GRADE & DRAINAGE	28		367	447	778	483	20	4	
BASE & SURFACE	162	271	362	379	253	285	221	42	
STRUCTURES	63					42	65		
INCIDENTALS ●	11	14	20	25	32	26	12	2	
TOTAL COST ●●	279	285	755	868	1076	850	333	51	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENGR IS INCLUDED

FAP ROUTE NO 33 & 35
SHEET 1 OF 1

ACCUM. ROUTE MILEAGE	46.7	48.4		
LENGTH (MILES)	1.7	0.2		
FINANCIAL DIST.	8	8		
CLASS (RURAL-URBAN-FOREST)	R	U		
NO. OF LANES	2	2		
EXISTING ROADWAY WIDTH	24	26		
SUFFICENCY RATING	47	63		
DESIGN ADT 20 YEAR	1100	1800		
NO. OF LANES & DESIGN WIDTH	2-40	2-40		
TIME OF IMPROVEMENT (YEARS)	68-71	68-71		
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(2)		
ESTIMATED NEEDS IN THOUSANDS				
RIGHT OF WAY	7	2		
UTILITIES	2	2		
GRADE & DRAINAGE	51	2	SPUR ROUTE 36	
BASE & SURFACE	115	5		
STRUCTURES				
INCIDENTALS *	7			
TOTAL COST **	182	11		

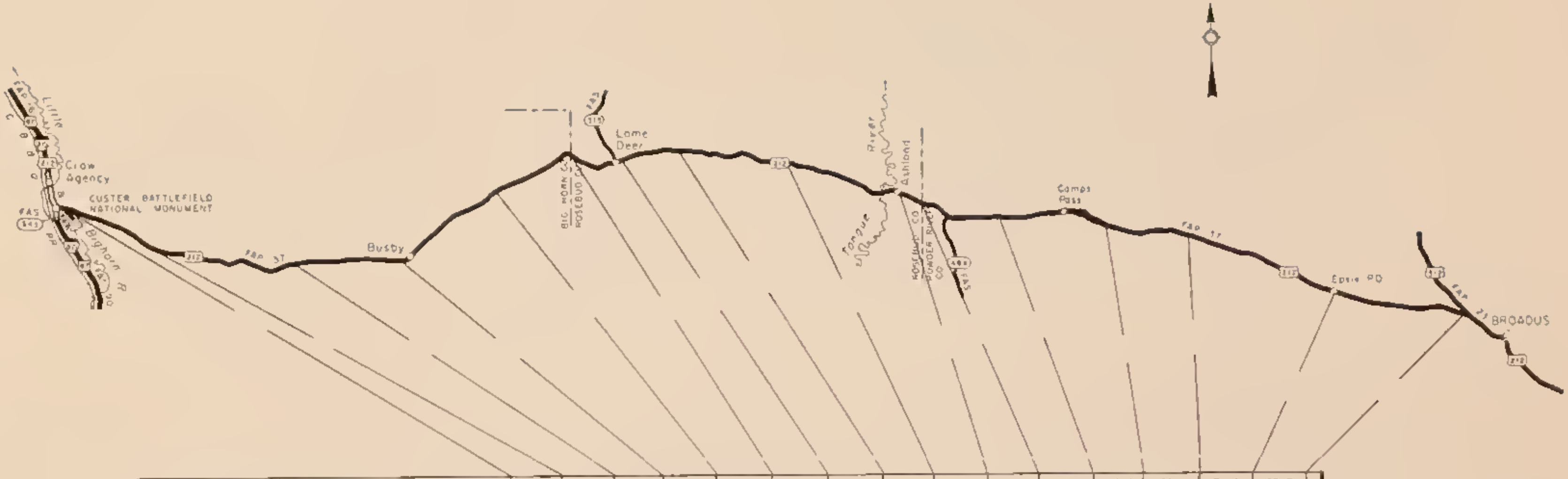
* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED



ACCUM. ROUTE MILEAGE	0.0	7.5	13.9	16.3	19.0	26.2	31.2	31.7	36.1	40.2
LENGTH (MILES)	7.5	6.4	2.4	2.7	7.2	5.0	0.5	4.4	4.1	6.5
FINANCIAL DIST.	8	8	8	8	8	8	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	26	24	26	28	29	26	26	26	25	26
SUFFICENCY RATING	53	53	70	84	91	53	69	52	56	57
DESIGN ADT 20 YEAR	800	800	800	1100	800	800	600	600	600	800
NO. OF LANES & DESIGN WIDTH	2-34	2-34	2-34	2-40	2-40	2-40	2-34	2-34	2-34	2-40
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	77-86	77-86	77-86	72-76	72-76	72-76	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(2)	(2)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY	30	26	10	5	10	20	2	18	16	26
UTILITIES	8	6	2	1	5	5		4	4	7
GRADE & DRAINAGE	606	523	135	12	32	218	18	169	107	241
BASE & SURFACE	443	360	141	60	161	336	29	260	241	401
STRUCTURES						35		20		
INCIDENTALS *	37	32	11	6	16	72	2	17	14	26
TOTAL COST **	1124	947	299	84	224	686	50	488	382	701

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

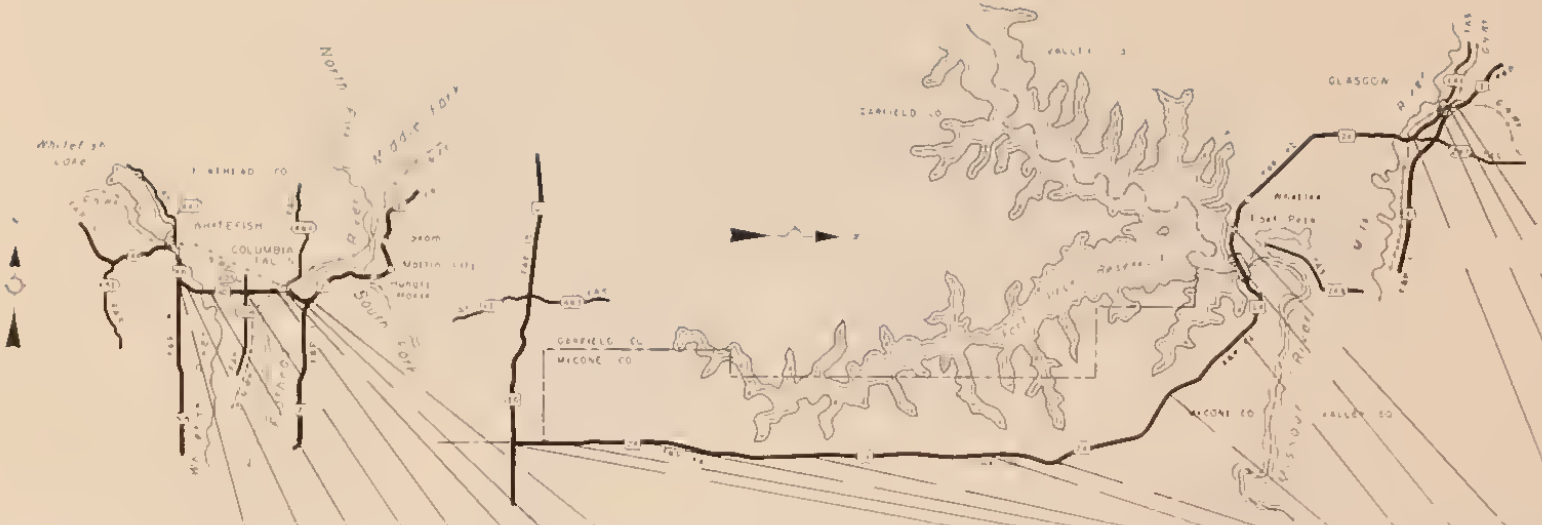
FAP ROUTE 36 & SPUR
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	7.9	17.2	24.5	32.6	38.7	42.3	46.5	53.6	62.3	64.3	70.6	79.3	84.8	95.8
LENGTH (MILES)	7.9	9.3	7.3	8.1	6.1	3.6	4.2	7.1	8.7	2.0	6.3	8.7	5.5	11.0	7.9
FINANCIAL DIST.	11	11	11	11	11	12	12	12	12	12	12	12	12	12	12
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	FR	FR	FR	FR	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	24	24	26	24	26	24	28	28	28	26	28	26
SUFFICENCY RATING	51	52	52	55	54	56	62	61	57	69	81	76	68	61	77
DESIGN ADT 20 YEAR	1200	1200	1200	1200	1200	1200	1200	1200	1200	1000	1000	1000	1000	1000	1000
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	72-76	72-76	72-76	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS															
RIGHT OF WAY	32	37	29	33	24	18	17	28	35						
UTILITIES	1	1	2	2	3	1	38	24	2						
GRADE & DRAINAGE	361	465	321	270	282	303	205	838	382	24	110	105	248	133	138
BASE & SURFACE	531	626	492	545	411	243	283	477	586	61	190	265	167	334	239
STRUCTURES		82		249	59	46			50						
INCIDENTALS *	34	41	31	32	26	18	18	44	37	5	17	72	18	28	21
TOTAL COST **	959	1252	875	1131	805	629	561	1411	1092	90	317	442	433	495	398

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'G IS INCLUDED

FAP ROUTE NO 37
SHEET 1 OF 1



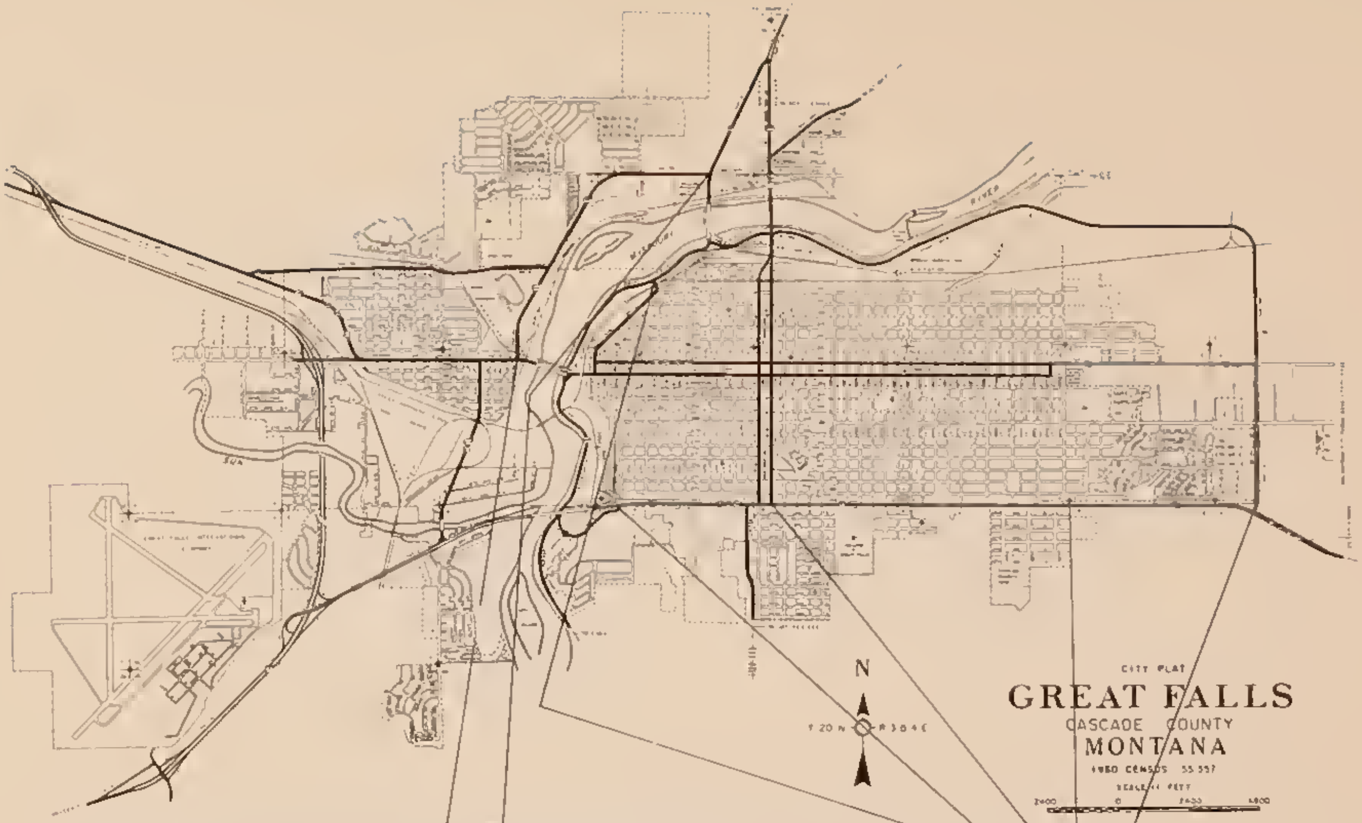
ACCUM. ROUTE MILEAGE	0.0	0.3	2.2	4.5	6.4	6.9	7.4
LENGTH (MILES)	0.3	1.9	2.3	1.9	0.5	0.5	1.8
FINANCIAL DIST	1	1	1	1	1	1	1
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	U	U	R
NO OF LANES	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	38	28	28	28	34	34	28
SUFFICENCY RATING	71	48	44	23	40	40	40
DESIGN ADT 20 YEAR	2400	2100	2400	5200	6000	6000	7200
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	4-86	4-86	2-44	2-44
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	66-71	1967	1967	1967	68-71
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(1)	(1)	(1)	(2)	(1)
ESTIMATED NEEDS IN THOUSANDS							
RIGHT OF WAY		23	28	152	50	25	23
UTILITIES		2	2	50	20	10	3
GRADE & DRAINAGE	2	94	113	123	73	18	67
BASE & SURFACE	5	117	141	168	85	44	149
STRUCTURES		85					410
INCIDENTALS ●		8	9	20	7	4	7
TOTAL COST ●●	7	329	293	513	235	101	659

● [illegible] ENGINEERING, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR [illegible] IS INCLUDED

ACCUM. ROUTE MILEAGE	0.0	2.0	8.3	19.7	31.8	37.3	46.1	52.3	56.3	59.2	73.2	75.4	76.0
LENGTH (MILES)	2.0	6.3	11.4	12.1	5.5	8.8	6.2	3.0	2.9	14.0	2.2	0.6	0.1
FINANCIAL DIST.	5	4	4	4	4	4	4	4	3	3	3	3	3
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	R	R	R	R	R	U	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	28	28	28	28	28	28	28	28	28	28	28	40	30
SUFFICENCY RATING	84	84	84	56	93	85	81	55	89	53	37	85	80
DESIGN ADT 20 YEAR	200	200	200	200	200	200	200	200	200	1000	2500	7000	9999
NO. OF LANES & DESIGN WIDTH	2-28	2-28	2-28	2-28	2-28	2-28	2-28			2-40	2-40	2-44	4-68
TIME OF IMPROVEMENT (YEARS)	77-86	77-86	77-86	77-86	77-86	77-86	77-86			72-76	1967	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(2)	(2)	(2)	(2)	(2)	(2)			(1)	(1)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS													
RIGHT OF WAY										65	44	30	7
UTILITIES										46	7	10	5
GRADE & DRAINAGE							31			622	80	25	3
BASE & SURFACE	108	[illegible]	614	652	296	474	334			542	171	51	12
STRUCTURES										765			450
INCIDENTALS ●	5	17	32	34	15	25	18			59	9	4	
TOTAL COST ●●	113	256	646	686	311	499	383			2093	311	120	471

● [illegible] ENGINEERING, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR [illegible] IS INCLUDED

FAP ROUTE NO 38 & 42
SHEET 1 OF 1



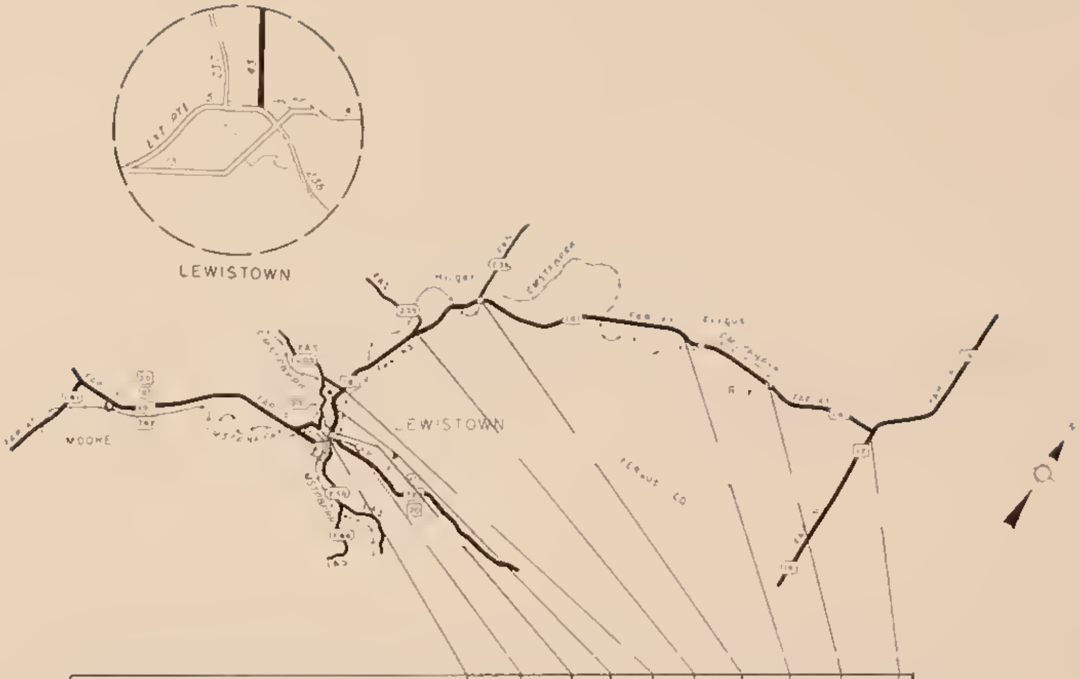
ACCUM. ROUTE MILEAGE	0.0	
LENGTH (MILES)	2.0	
FINANCIAL DIST.	6	
CLASS (RURAL-URBAN-FOREST)	7	
NO. OF LANES	2	
EXISTING ROADWAY WIDTH	24	
SUFFICENCY RATING	50	
DESIGN ADT 20 YEAR	9000	
NO. OF LANES & DESIGN WIDTH	4-84	
TIME OF IMPROVEMENT (YEARS)	1967	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	
ESTIMATED NEEDS IN THOUSANDS		
RIGHT OF WAY	140	
UTILITIES	20	
GRADE & DRAINAGE	175	
BASE & SURFACE	306	
STRUCTURES		
INCIDENTALS ●	39	
TOTAL COST ●●	680	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

ACCUM. ROUTE MILEAGE	4.2	3.1	1.1	0.0	
LENGTH (MILES)	2.3	1.1	2.0	1.1	
FINANCIAL DIST.	6	E	6	6	
CLASS (RURAL-URBAN-FOREST)	U	U	U	U	
NO. OF LANES	2	4	4	4	
EXISTING ROADWAY WIDTH	24	80	62	62	
SUFFICENCY RATING	55	95	95	84	
DESIGN ADT 20 YEAR					
NO. OF LANES & DESIGN WIDTH	4-64			4-62	
TIME OF IMPROVEMENT (YEARS)	68-71			77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)			(2)	
ESTIMATED NEEDS IN THOUSANDS					
RIGHT OF WAY	161				
UTILITIES	46				
GRADE & DRAINAGE	130			85	
BASE & SURFACE	126			54	
STRUCTURES	650				
INCIDENTALS ●	20			10	
TOTAL COST ●●	1133			149	

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR ENG'R IS INCLUDED

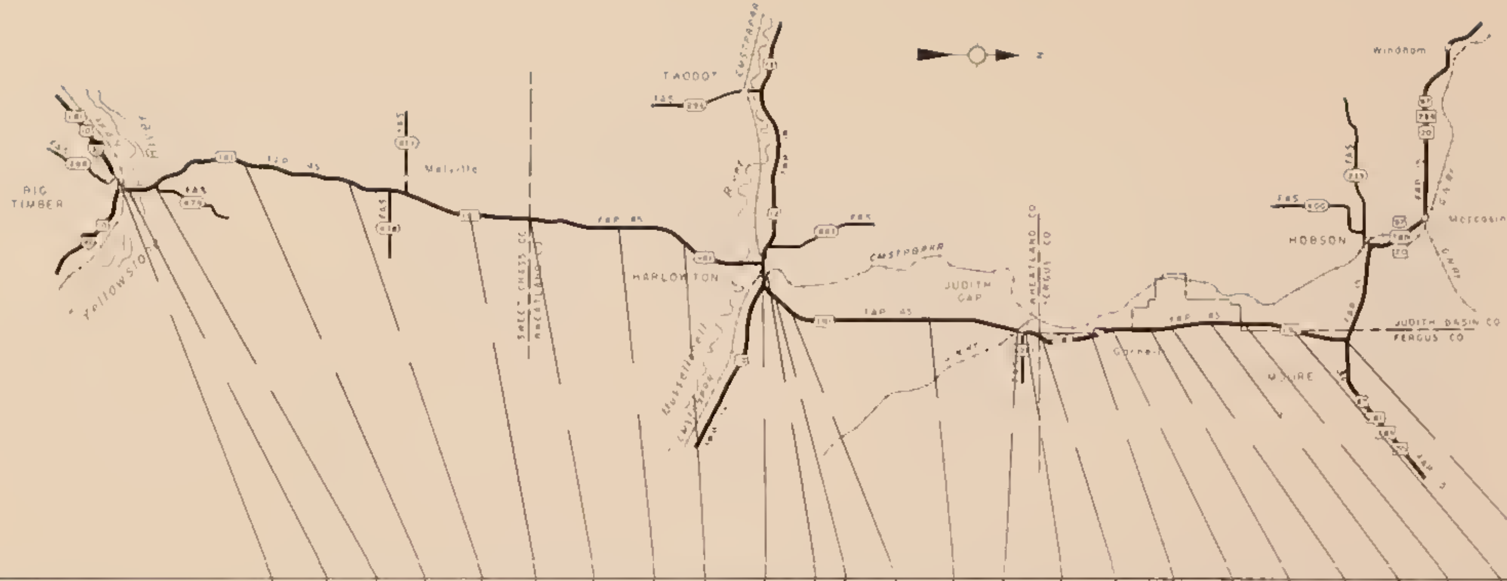
FAP ROUTE 40 & 41
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.3	0.6	1.7	2.7	9.4	14.7	28.9	35.1	
LENGTH (MILES)	0.3	0.3	1.1	1.0	6.7	5.3	14.2	6.2	7.6	
FINANCIAL DIST.	5	5	5	5	5	5	5	5	5	
CLASS (RURAL-URBAN-FOREST)	U	U	R	R	R	R	R	R	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	50	28	24	30	30	30	28	28	32	
SUFFICENCY RATING	35	65	12	62	56	69	97	90	80	
DESIGN ADT 20 YEAR	7200	5000	3600	3600	2400	1800	600	600	600	
NO. OF LANES & DESIGN WIDTH		2-44	2-44	2-44	2-40	2-40	2-34	2-36	2-36	
TIME OF IMPROVEMENT (YEARS)		77-86	1967	77-86	77-86	77-86	77-95	77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(2)	(1)	(1)	(1)	(2)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS										
RIGHT OF WAY		12	22	4	27	21				
UTILITIES		14	1	5	12	5				
GRADE & DRAINAGE		15	48	44	204	233	91	39	16	
BASE & SURFACE		25	93	87	515	414	130	76	37	
STRUCTURES			43			5				
INCIDENTALS *		5	8	8	33	24	22	9	11	
TOTAL COST **		72	215	145	391	702	252	119	64	

* RR GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR CE&E IS INCLUDED

FAP ROUTE N 43
SHEET 1 OF 1

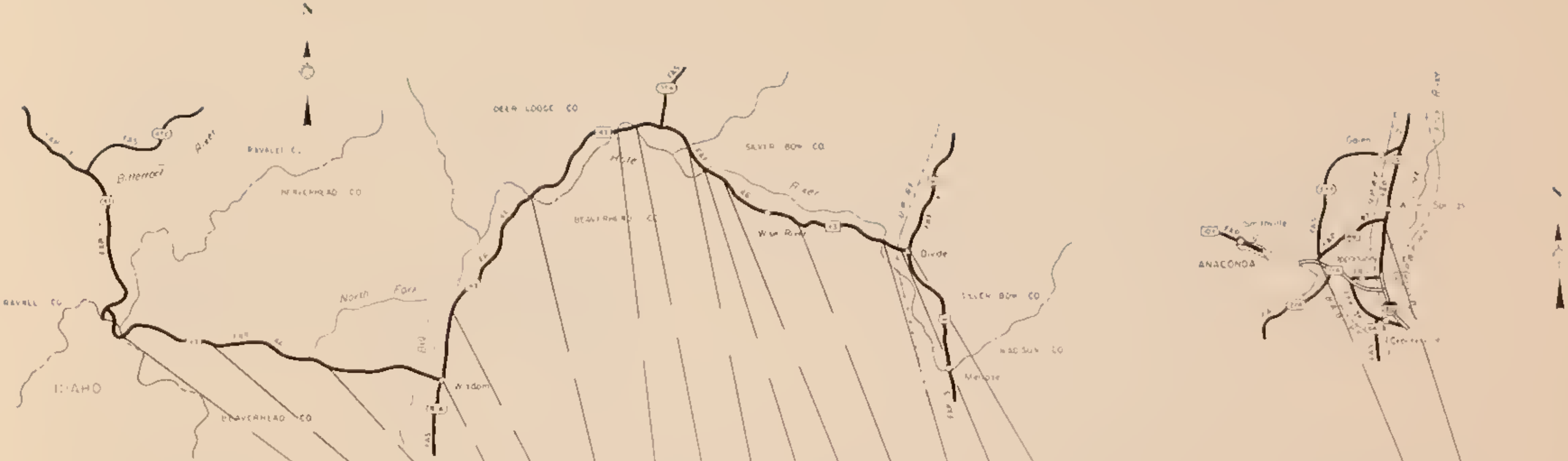


ACCUM. ROUTE MILEAGE	0.0	0.5	2.7	9.1	15.7	23.8	28.2	33.3	38.2	43.8		43.9	47.7	57.2	61.5	62.1	62.8	65.8	66.5	68.4	69.0	73.0	77.0	79.9
LENGTH (MILES)	0.5	2.2	6.4	6.6	8.1	4.4	5.1	4.9	5.6	0.1		3.8	9.5	4.3	0.6	0.7	3.0	0.7	1.9	0.6	4.0	4.0	2.9	3.2
FINANCIAL DIST.	10	10	10	10	10	10	10	10	10	10		10	10	10	10	10	10	6	5	6	5	5	6	5
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	R	R	R	U		R	R	R	U	R	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	24	24	24	24	26	26	26	26	24	26		26	26	26	36	26	26	26	26	26	26	26	26	26
SUFFICENCY RATING	64	47	49	58	59	63	65	58	52	65		67	72	70	98	70	55	74	74	55	53	52	53	51
DESIGN ADT 20 YEAR	2000	1400	700	700	600	600	600	600	600	1400	SEE ROUTE 14	1200	1200	1200	1800	1400	1300	1300	1300	1300	1300	1500	1500	1500
NO OF LANES & DESIGN WIDTH	2-44	2-40	2-34	2-34	2-34	2-34	2-34	2-36	2-34	2-40		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40
TIME OF IMPROVEMENT (YEARS)	68-71	68-71	68-71	77-80	77-86	77-86	77-86	77-86	72-76	72-76		77-86	77-86	77-86	77-86	72-76	72-76	77-86	77-86	77-86	72-76	72-76	72-76	72-76
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)		(2)	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
ESTIMATED NEEDS IN THOUSANDS																								
RIGHT OF WAY	19	17	26	26	32	18	10	40	22	5					21	3	12	3	8	2	16	16	12	13
UTILITIES	5	2	3	3	4	4	1	4	12	2	COINCIDENT MILEAGE				5	1	3	1	2	1	8	8	3	4
GRADE & DRAINAGE	15	96	258	285	324	170	120	167	228	2		11	53	35	12	30	104	20	91	18	148	189	101	151
BASE & SURFACE	44	120	379	391	378	260	301	302	331	7		94	235	106	38	45	201	46	127	40	268	259	195	215
STRUCTURES		423		66	229		96		186					55										120
INCIDENTALS •	3	8	16	27	30	18	18	18	22			3	21	9	3	3	12	2	8	2	16	17	11	14
TOTAL COST ••	80	665	682	798	907	470	546	531	801	16		124	309	305	79	82	332	72	236	63	456	409	322	517

• AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

•• 10% FOR ENGR. IS INCLUDED

FAP ROUTE NO 45
SHEET 1 OF 1



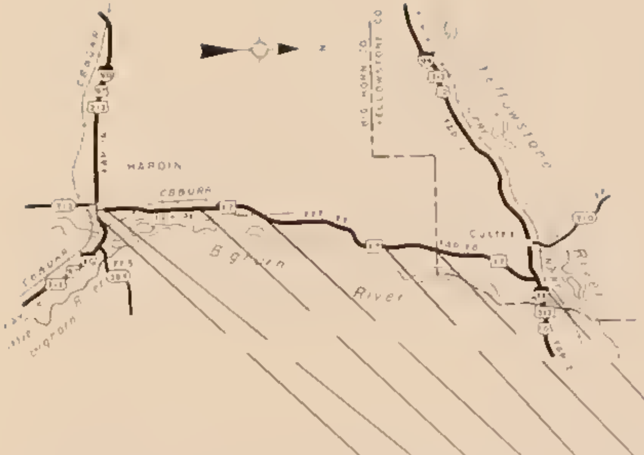
ACCUM. ROUTE MILEAGE	0.0	5.7	16.1	25.3	30.6	40.8	50.2	50.3	55.9	56.9	57.7	65.4	72.6	75.4
LENGTH (MILES)	6.7	9.4	9.2	5.3	10.2	9.4	0.1	5.6	1.0	0.8	7.7	7.2	2.8	0.6
FINANCIAL DIST.	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CLASS (RURAL-URBAN-FOREST)	FR	FR	R	R	R	R	R	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	28	28	28	28	26	26	30	26	28	28	26	26	22	22
SUFFICENCY RATING	99	99	93	88	99	82	94	82	81	95	75	70	54	78
DESIGN ADT 20 YEAR	240	240	300	300	160	320	320	320	400	460	460	460	460	600
NO. OF LANES & DESIGN WIDTH					2-30	2-30	2-30	2-30	2-34	2-34	2-34	2-34	2-34	2-34
TIME OF IMPROVEMENT (YEARS)					77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	72-76	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(2)
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY											8		11	
UTILITIES											3		4	
GRADE & DRAINAGE					55	60	1	36	6	5	120	83	180	2
BASE & SURFACE					87	75	1	45	8	6	133	58	112	16
STRUCTURES						68		56					102	
INCIDENTALS *					68	17		10	2	1	18	14	61	1
TOTAL COST **					210	220	2	147	16	12	282	154	540	19

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

ACCUM. ROUTE MILEAGE	0.0
LENGTH (MILES)	6.0
FINANCIAL DIST.	9
CLASS (RURAL-URBAN-FOREST)	R
NO. OF LANES	2
EXISTING ROADWAY WIDTH	26
SUFFICENCY RATING	65
DESIGN ADT 20 YEAR	2000
NO. OF LANES & DESIGN WIDTH	2-40
TIME OF IMPROVEMENT (YEARS)	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)
ESTIMATED NEEDS IN THOUSANDS	
RIGHT OF WAY	12
UTILITIES	6
GRADE & DRAINAGE	91
BASE & SURFACE	470
STRUCTURES	
INCIDENTALS *	23
TOTAL COST **	602

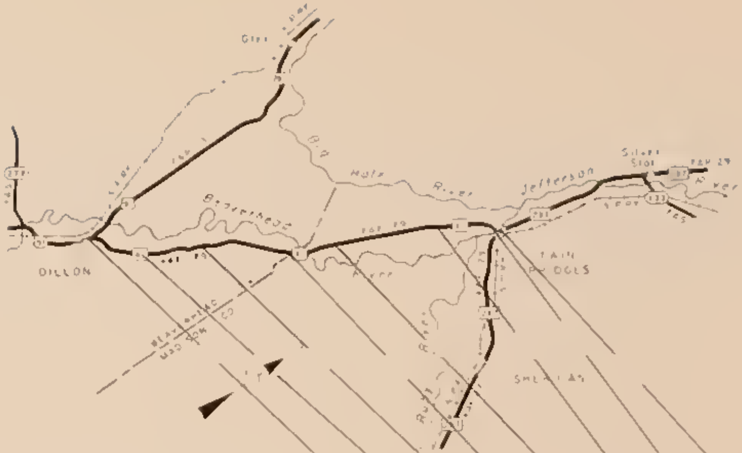
* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

FAP ROUTES 46 & 47
SHEET 1 OF 1



ACCUM. ROUTE MILEAGE	0.0	0.7	6.8	11.7	18.4	22.8	
LENGTH (MILES)	0.7	6.1	4.9	6.7	4.4	6.9	
FINANCIAL DIST.	11	11	11	11	11	11	
CLASS (RURAL-URBAN-FOREST)	U	R	R	R	R	R	
NO. OF LANES	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	44	26	26	26	28	28	
SUFFICENCY RATING	69	50	61	77	86	85	
DESIGN ADT 20 YEAR	1000	800	800	800	600	400	
NO. OF LANES & DESIGN WIDTH	2-44	2-40	2-40	2-40	2-34	2-30	
TIME OF IMPROVEMENT (YEARS)	72-76	72-76	77-86	77-86	77-86	77-86	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(1)	(1)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS							
RIGHT OF WAY	35	74	42	27			
UTILITIES	10	20	16	22			
GRADE & DRAINAGE	35	197	188	203	14	22	
BASE & SURFACE	60	412	330	451	22	34	
STRUCTURES		61					
INCIDENTALS *	5	24	23	26	7	10	
TOTAL COST **	145	788	599	729	43	66	

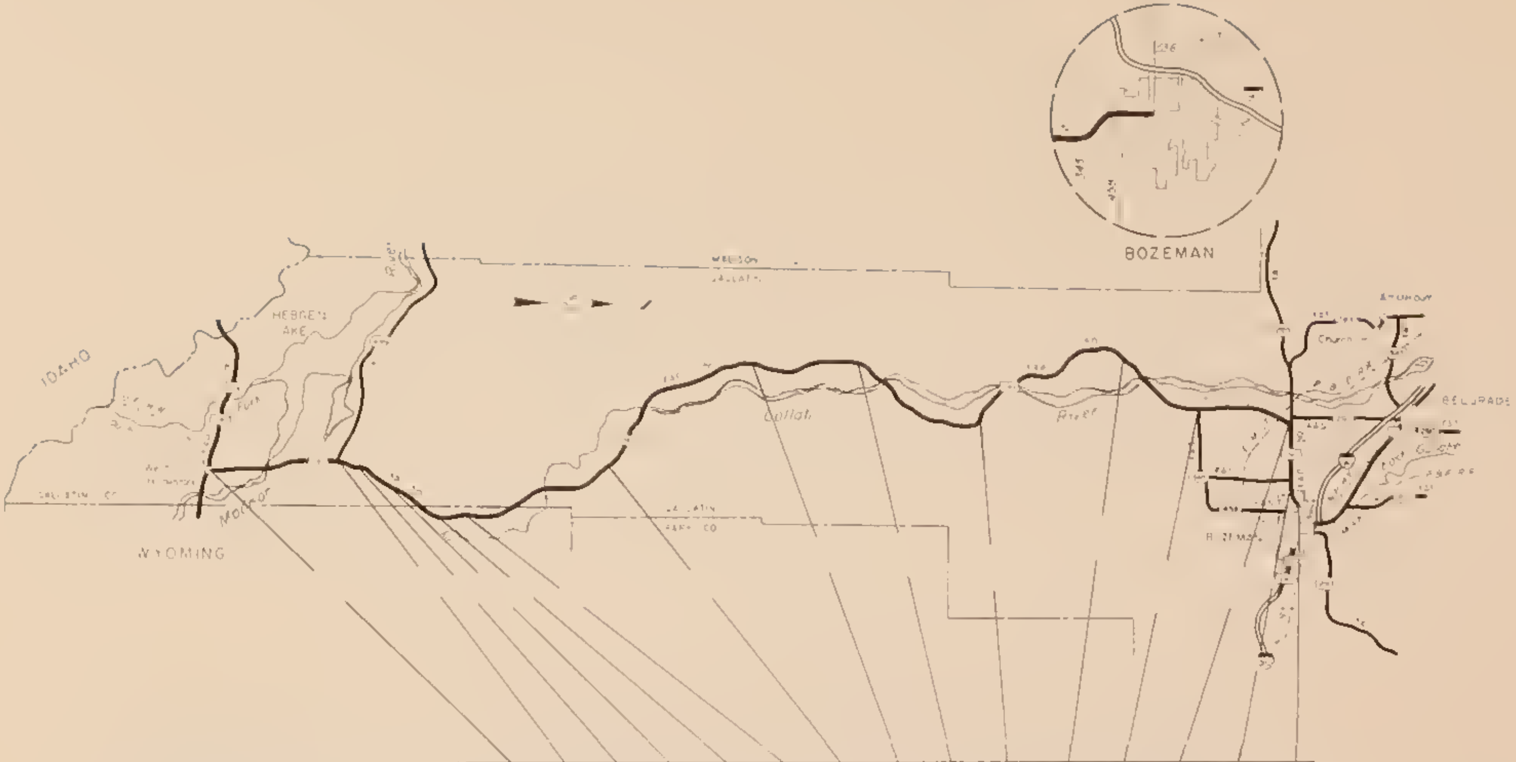
* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED



ACCUM. ROUTE MILEAGE	0.0	3.0	6.8	13.7	16.2	23.5	25.9	
LENGTH (MILES)	3.0	3.8	6.9	2.5	7.3	2.4	0.7	
FINANCIAL DIST.	9	9	9	9	9	9	9	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	R	R	U	
NO. OF LANES	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	26	24	24	24	28	28	28	
SUFFICENCY RATING	30	47	72	67	69	54	80	
DESIGN ADT 20 YEAR	1640	1640	1640	1640	1200	1200	1800	
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-40	
TIME OF IMPROVEMENT (YEARS)	1967	68-71	77-86	77-86	77-86	72-76	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(2)	(2)	(2)	(2)	(1)	
ESTIMATED NEEDS IN THOUSANDS								
RIGHT OF WAY	36	46	8	3			10	
UTILITIES	3	4	2	1			3	
GRADE & DRAINAGE	90	166	56	24	32	15	5	
BASE & SURFACE	233	297	179	65	150	69	10	
STRUCTURES				52				
INCIDENTALS *	13	17	10	6	15	7		
TOTAL COST **	375	530	271	151	197	91	28	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENG'R IS INCLUDED

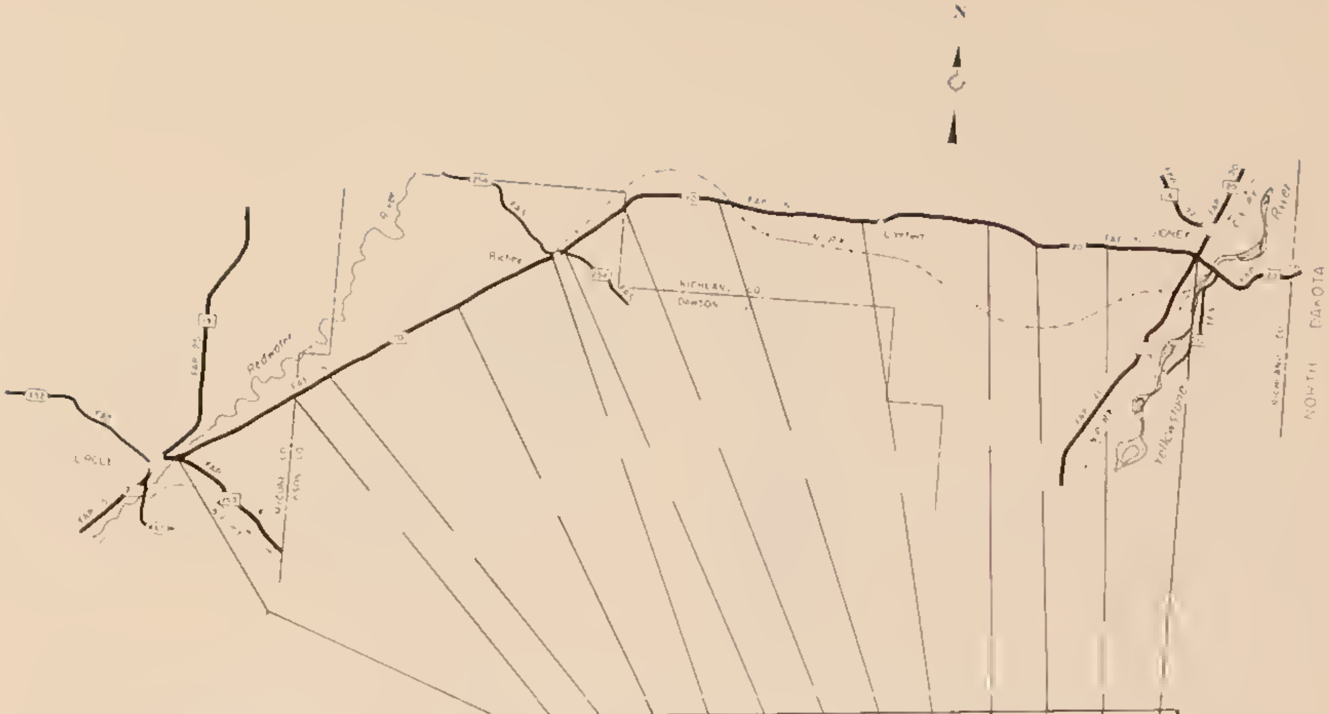
FAP ROUTE N 48 & 49
SHEET 1 OF



ACCUM ROUTE MILEAGE	0.0	7.2	8.4	10.6	14.9	15.5	31.1	40.0	47.9	60.9	70.0	76.3	81.8	86.2
LENGTH (MILES)	7.2	1.2	2.2	4.3	1.6	14.0	8.9	7.9	13.0	9.1	6.3	5.5	4.4	2.5
FINANCIAL DIST.	10	10	10	10	10	10	10	10	10	10	10	10	10	10
CLASS (RURAL-URBAN-FOREST)	FR	FR	FR	R	R	R	FR	FR	R	R	R	R	R	U
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2	2	4
EXISTING ROADWAY WIDTH	40	34	32	32	32	32	28	28	28	32	32	32	36	62
SUFFICENCY RATING	95	95	93	85	90	90	76	66	71	53	87	99	66	85
DESIGN ADT 20 YEAR	2100	2350	1200	1200	1200	1200	1200	1200	1200	1200	1200	2800	4200	5000
NO. OF LANES & DESIGN WIDTH		2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-40	2-44	4-68	4-62
TIME OF IMPROVEMENT (YEARS)		77-80	77-86	77-86	77-80	77-86	77-86	77-80	77-86	72-76	77-80	77-85	77-80	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST		(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(2)
ESTIMATED NEEDS IN THOUSANDS														
RIGHT OF WAY													176	
UTILITIES													40	
GRADE & DRAINAGE		6	29	28	6	93	57	51	171	135	28	77	244	
BASE & SURFACE		11	82	35	3	117	183	162	255	73	123	71	353	138
STRUCTURES			30			60	66	28	16	43			18	
INCIDENTALS *		2	5	8	1	27	19	17	61	20	17	11	33	18
TOTAL COST **		19	153	71	11	297	325	258	537	331	170	122	867	156

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

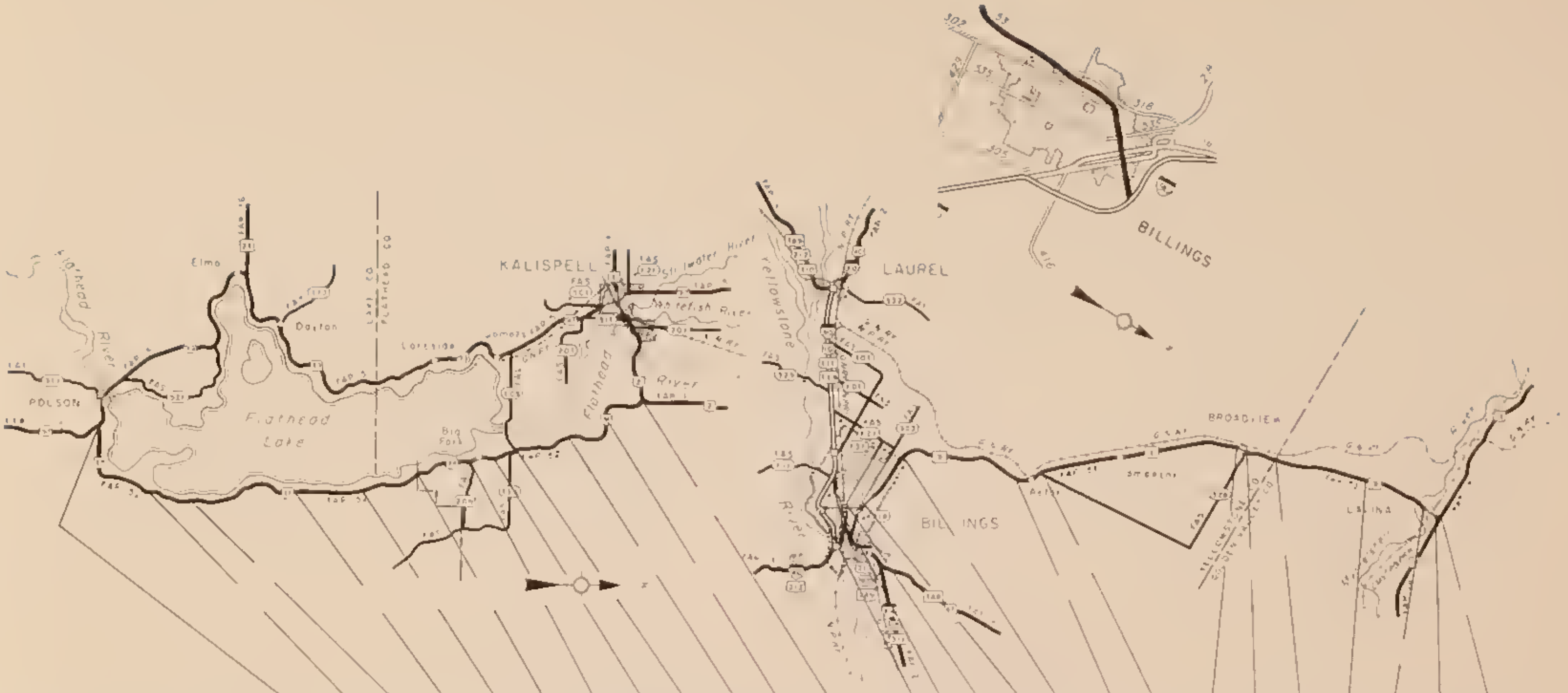
FAP ROUTE 50
SHEET 1 OF



ACCUM. ROUTE MILEAGE	0.0	8.3	9.1	18.8	27.3	27.6	32.6	38.4	49.2	57.4	60.7	64.3
LENGTH (MILES)	8.3	0.8	9.7	8.5	0.3	5.0	5.8	10.8	8.2	3.3	3.6	6.7
FINANCIAL DIST.	4	4	4	4	4	4	4	4	4	4	4	4
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	U	R	R	R	R	R	R	R
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2	2
EXISTING ROADWAY WIDTH	30	30	28	28	32	32	32	30	28	28	28	28
SUFFICENCY RATING	90	95	88	77	84	82	76	72	64	79	79	73
DESIGN ADT 20 YEAR	400	400	300	300	300	300	300	300	300	500	500	500
NO. OF LANES & DESIGN WIDTH			2-28	2-28	2-32	2-30	2-30	2-30	2-30	2-30	2-30	2-30
TIME OF IMPROVEMENT (YEARS)			77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86	77-86
IMPROVEMENT (1) NEW (2) UP GRADE EXIST			(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
ESTIMATED NEEDS IN THOUSANDS												
RIGHT OF WAY												
UTILITIES												
GRADE & DRAINAGE									27	7	12	15
BASE & SURFACE			133	117	4	137	160	297	245	99	108	200
STRUCTURES												
INCIDENTALS ●			15	13	1	8	9	16	12	5	5	15
TOTAL COST ●●			148	130	5	145	169	313	284	111	125	230

● AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
●● 10% FOR FHWA IS INCLUDED

FAF ROUTE [illegible]
SHEET 1 OF 1

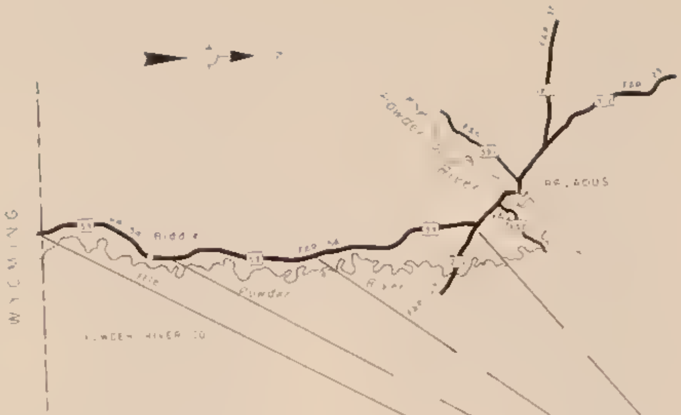


ACCUM. ROUTE MILEAGE	0.0	7.1	10.3	18.0	23.6	28.3	30.7	32.2	33.9	37.8	41.6		0.0	0.9	1.0	2.1	7.2	16.0	19.0	31.6	32.1	34.3	40.6	45.5	46.3	
LENGTH (MILES)	7.1	3.2	7.7	5.6	4.7	2.4	1.5	1.7	3.9	3.8	3.9		0.9	0.1	1.1	4.1	8.8	3.0	12.6	0.5	2.2	6.3	4.9	0.8	0.4	
FINANCIAL DIST.	1	1	1	1	1	1	1	1	1	1	1		11	11	11	11	11	11	11	11	11	11	11	11	11	
CLASS (RURAL-URBAN-FOREST)	R	R	R	R	FR	R	R	R	R	R	R		U	U	U	U	R	R	R	U	R	R	R	U	R	
NO. OF LANES	2	2	2	2	2	2	2	2	2	2	2		4	2	2	4	2	2	2	2	2	2	2	2	2	
EXISTING ROADWAY WIDTH	26	24	26	24	24	24	28	24	24	24	24		68	50	50	69	76	25	24	40	26	24	30	30	30	
SUFFICENCY RATING	37	45	53	49	43	45	51	32	40	35	45		95	80	80	95	48	52	53	65	51	42	64	74	54	
DESIGN ADT 20 YEAR	2000	2000	2000	2000	2000	2000	1400	1400	1800	1800	1800						1900	1900	1600	1600	1400	1400	1400	1400	1400	
NO. OF LANES & DESIGN WIDTH	2-40	2-40	2-40	2-40	2-40	2-40	2-44	2-44	2-40	2-40	2-40			4-68	4-80		-40	2-40	2-40	2-44	2-40	2-40	2-40	2-44	2-40	
TIME OF IMPROVEMENT (YEARS)	1967	68-71	72-76	68-71	68-71	68-71	68-71	1967	1967	1967	1967			68-71	68-71		68-71	1967	77-86	72-76	72-76	68-71	77-86	68-71	72-76	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)			(1)	(2)		(1)	(1)	(1)	(2)	(1)	(1)	(2)	(2)	(2)	
ESTIMATED NEEDS IN THOUSANDS																										
RIGHT OF WAY	355	160	231	280	141	120	75	20	49	76	47			230	75		35	12	50	16	9	25				
UTILITIES	26	16	15	17	9	5	5	3	8	8	8			100	50		6	2	7	5	1	3		5		
GRADE & DRAINAGE	347	417	1003	714	738	260	150	91	171	166	118			150	45		442	91	781	10	96	321	32	19	2	
BASE & SURFACE	439	198	476	347	290	147	99	112	240	233	241			50	153		690	232	986	34	147	427	193	78	16	
STRUCTURES							182		35	59				450								59				
INCIDENTALS *	70	20	49	35	32	14	8	8	16	16	15			5	5		37	11	47		8	14	10	6		
TOTAL COST **	1207	807	1774	1393	1210	546	525	234	516	558	429			975	328		1210	348	1966	65	261	845	235	68	18	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC

** 10% FOR ENGR IS INCLUDED

FAP ROUTE NO 52 & 53
SHEET 1 OF



ACCUM. ROUTE MILEAGE	0.0	9.0	17.9	
LENGTH (MILES)	9.0	8.9	11.5	
FINANCIAL DIST	12	12	12	
CLASS (RURAL-URBAN-FOREST)	R	R	R	
NO. OF LANES	2	2	2	
EXISTING ROADWAY WIDTH	24	24	22	
SUFFICENCY RATING	60	50	45	
DESIGN ADT 20 YEAR	300	300	300	
NO. OF LANES & DESIGN WIDTH	2-30	2-30	2-30	
TIME OF IMPROVEMENT (YEARS)	77-86	68-71	68-71	
IMPROVEMENT (1) NEW (2) UP GRADE EXIST	(2)	(1)	(1)	
ESTIMATED NEEDS IN THOUSANDS				
RIGHT OF WAY		18	23	
UTILITIES		4	5	
GRADE & DRAINAGE	145	217	368	
BASE & SURFACE	247	440	567	
STRUCTURES				
INCIDENTALS *	25	24	29	
TOTAL COST **	457	790	988	

* AT GRADE RR CROSSINGS, BEAUTIFICATION, TRAFFIC CONTROL & MISC
** 10% FOR ENGR IS INCLUDED

FAP ROUTE 0 54
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